

1 July 2005

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PO Box 1450
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Application No.: 09/301,438 Confirmation No.: 5559
First Named Inventor: Wolf, Christopher K. Filing Date: 28 April 1999
Group Art Unit: 2665 Examiner: Nguyen, S.
Atty. Docket No.: NS-3799 US
Title: System and Method for Decoding Audio/Video Data such as DVD or/and DVB Data
Assignee(s): National Semiconductor Corp.

Sir:

Transmitted herewith are the following documents for the above patent application:

1. Return Receipt Postcard;
2. This Transmittal Letter (in duplicate);
3. Response (14 pp.);
4. Declaration of Alin Theodor Jacob (3 pp.);
5. Copy of 1 cited reference; and
6. Copy of 3 court cases.

☒ The fee has been calculated as shown below:

CLAIMS AS AMENDED

Claims Remaining <u>After Amendment</u>			Highest No. Previously <u>Paid For</u>		Present <u>Extra</u>		<u>Rate</u>		<u>Additional Fee</u>
Total Claims	42	Minus	42	=	0	x	\$50.00	\$	0.00
Independent Claims	2	Minus	2	=	0	x	\$200.00	\$	0.00
<input type="checkbox"/>	Fee of \$360 for the first filing of one or more multiple dependent claims							\$	
<input type="checkbox"/>	Fee for Request for Extension of Time (month(s))							\$	
<input type="checkbox"/>	Fee for							\$	
<u>Total additional fee for this Amendment:</u>								\$	0.00
<input checked="" type="checkbox"/>	Please charge Deposit Account No. 502641 in the amount of							\$	0.00

☒ Conditional Petition for Extension of Time: If an extension of time is required, the Commissioner is authorized to deduct the necessary fee from Deposit Account No. 502641.

☒ Also, charge any additional fees required and credit any overpayment to Deposit Account No. 502641.

EXPRESS MAIL LABEL NO.:

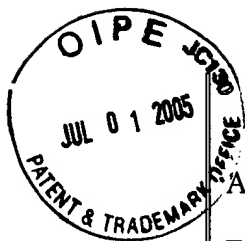
EV 500 310 981 US

Respectfully submitted,

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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RESPONSE

Sir:

This is in response to the final Office Action mailed 27 April 2005 for the above patent application.

As in the Office Action mailed 30 April 2004, the present Office Action states that "The amendment filed 12/10/03, 12/23/03 and 2/11/04 are objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure". By the "amendment filed 12/10/03, 12/23/03 and 2/11/04", Applicants' Attorney again assumes that the Examiner means (a) the Amendment submitted 10 December 2003, (b) the Supplemental Amendment submitted 23 December 2003, and (c) the Amendment submitted 11 February 2004 for revising the text, and does not include the further Amendment submitted 11 February 2004 for revising the drawings since the 11 February 2004 Amendment to Drawings does not present any revision(s) to the specification. Subject to this assumption, the objection to the 10 December 2003 Amendment, the 23 December 2003 Supplemental Amendment, and the 11 February

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2004 Amendment to Text as introducing new matter into the disclosure is respectfully traversed.

The Examiner again alleges that deletion of the material "which is typically a first in first or (FIFO) buffer" at lines 4 and 5 on page 7 of the specification introduces new matter into the disclosure. Presumably the Examiner again means the last clause of the sentence "SD 26 demultiplexes and depacketizes the data stream, storing the demultiplexed compressed audio and video data in data buffer 48, which is typically a First-In-First-Out (FIFO) buffer" in the paragraph bridging pages 6 and 7 of the specification.

On pages 4 and 5 of the Response submitted 29 July 2004 Applicants' Attorney further explained why data buffer 48 cannot actually be a FIFO buffer (in hardware) despite the disclosure in the specification that "SD 26 demultiplexes and depacketizes the data stream, storing the demultiplexed compressed audio and video data in data buffer 48, which is typically a First-In-First-Out (FIFO) buffer". In response, the Examiner asserts on page 6 of the present Office Action that deletion of the material "which is typically a first in first or (FIFO) buffer" at lines 4 and 5 on page 7 of the specification "is a new matter because the applicant defined the buffer which is a FIFO buffer" and that "The applicant can not delete it in order to modify the scope of the specification".

A FIFO buffer is an electronic data storage device in which data is provided (outputted) from the device in the same order that the data is provided (inputted) to the device. See, for example, Floyd, Digital Fundamentals (5th ed., Prentice-Hall), 1994, pages 587 - 589, copy enclosed. A FIFO buffer has only a single data input port and a single data output port. As disclosed in Floyd, the data in a FIFO buffer automatically passes from the input port to the output port. Consequently, a FIFO buffer does not have multiple addressable locations for storing data.

On page 7, the specification provides that "SD 26 has access to 32 different addressable locations in FIFO 48" and that "A host programmable memory, called the routing table (not shown in Fig. 1), directs SD 26 to a particular location within FIFO 48 in which the elementary streams and substreams of data are stored". Since a FIFO buffer does not have multiple addressable locations for storing data, buffer 48 cannot actually be a FIFO buffer.

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Correcting a technical error in a utility U.S. patent application does not introduce new matter if a person skilled in the relevant art would appreciate not only the existence of the error but what the error is. See Ex parte Brodbeck (PTOBA 1977) 199 USPQ 230, copy enclosed, in which the examiner asserted that certain language in the lead claim differed substantive-wise from the corresponding language in the specification and therefore introduced new matter into the application. The Brodbeck applicant pointed out the language in the specification was erroneous and presented skilled-artisan affidavit evidence to explain why the language was erroneous and how it should be corrected in light of the knowledge of a person skilled in the art.

The PTO Board of Appeals in Brodbeck determined that the objected-to language did not introduce new matter into the application. In so doing, the Board of Appeals stated on page 231 of Brodbeck that "Appellant has furnished the opinions of two experts, based on the stated facts, that one skilled in the art would recognize both that appellant's patent limitation does not mean literally what it says, and also what the intended meaning is". Citing In re Oda et al. (CCPA 1971) 170 USPQ 268, copy enclosed, in which the Court of Customs and Patent Appeals determined that correcting "nitrous acid" to "nitric acid" in the specification of a utility U.S. patent application did not introduce new matter into the specification because a person skilled in the art would recognize both the error and the requisite correction, the Board of Appeals further stated on page 231 of Brodbeck that "A change of wording to correct an error is not new matter if one skilled in the art would appreciate not only the existence of the error but what the error is".

Enclosed is a declaration of Alin Theodor Iacob, a person of high skill in the semiconductor memory art. After noting that the specification, as filed, describes buffer 48 as having 32 addressable data-storage locations, Mr. Iacob states in paragraph 8 of the accompanying declaration that "Inasmuch as a FIFO buffer does not have multiple addressable data-storage locations, buffer 48 is not a FIFO in hardware or a FIFO buffer in hardware despite being described as a 'FIFO' at various places in the specification, as filed". Mr. Iacob further states in paragraph 8 of the accompanying declaration that "On information and belief, the fact that buffer 48 is not a FIFO in hardware or a FIFO buffer in hardware would also generally be recognized by other persons skilled in the semiconductor memory art".

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As disclosed on page 25 of the specification, buffer 48 is preferably embodied as part of a random-access memory ("RAM"). Mr. Iacob particularly notes this point in paragraph 9 of the accompanying declaration. As Mr. Iacob points out in paragraph 9 of the declaration and as is very well known to persons skilled in the semiconductor memory art, a RAM has multiple addressable data-storage locations. Since buffer 48 has multiple addressable data-storage locations and since a FIFO does not have multiple addressable data-storage locations, buffer 48 could not be implemented in the preferred manner as part of a RAM if buffer 48 were intended to be a FIFO in hardware.

Referring to pages 22 - 25 of the specification as filed, Mr. Iacob points out in paragraph 10 of the declaration that "Certain of the sub-buffers of buffer 48 operate in a FIFO manner . . . achieved by appropriately controlling the placement of information in, and the removal of information from, each such sub-buffer using, for example, a memory management unit". However, the information placed in each sub-buffer of buffer 48 can be removed (outputted) from that sub-buffer in various orders relative to the information removed from other sub-buffers of buffer 48. As Mr. Iacob further points out in paragraph 10 of the declaration, "the information placed in any of the 32 sub-buffers of buffer 48 is not [emphasis added] limited to being the first information removed from buffer 48". In paragraph 10, Mr. Iacob then largely repeats his earlier observation that "buffer 48 is not a FIFO in hardware or a FIFO buffer in hardware and, on information and belief, would not generally be recognized as a FIFO in hardware or a FIFO buffer in hardware by persons skilled in the semiconductor memory art".

The Iacob declaration demonstrates that persons skilled in the relevant art, i.e., the semiconductor memory art here, would recognize that buffer 48 is not actually a FIFO or a FIFO buffer. In accordance with Brodbeck and Oda, deletion of the material "which is typically a first in first or (FIFO) buffer" at lines 4 and 5 on page 7 of the specification corrects an error that would be readily recognized by persons skilled in the relevant art and therefore does not introduce new matter into the specification.

The Examiner alleges that substitution of the term "buffer" for "FIFO" at page 7, line 7, page 10, lines 12, 26, and 27, page 11, line 30, and page 23, lines 29 and 30, introduces new matter into the disclosure.

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The preceding changes involve item 48. That is, "FIFO 48" has been changed to "buffer 48" at the foregoing places in the specification.

Taking note of the fact that buffer 48 is described simply as a "buffer" in the specification at various places after the sentence "SD 26 demultiplexes and depacketizes the data stream, storing the demultiplexed compressed audio and video data in data buffer 48, which is typically a First-In-First-Out (FIFO) buffer" in the paragraph bridging pages 6 and 7 of the specification, it is reasonable to describe buffer 48 simply as a "buffer". Mr. Iacob also states in paragraph 11 of the accompanying declaration that "Buffer 48 can be accurately described simply as a buffer". In further accordance with Brodbeck and Oda, changing "FIFO" to "buffer" at the indicated places in the specification completes the correction of an error that would be readily recognized by persons skilled in the relevant art and does not introduces new matter into the specification.

For the preceding reasons, none of the objected-to material introduces new matter into the disclosure. The 35 USC 132 objection to the 10 December 2003 Amendment, the 23 December 2003 Supplemental Amendment, and the 11 February 2004 Amendment to Text as introducing new matter into the specification should be withdrawn.

Claims 41 - 52, 55 - 60, 62 - 75, and 78 - 82 have again been rejected under 35 USC 103(a) as obvious based on Okada et al. ("Okada"), U.S. Patent 5,668,601, in view of Maturi et al. ("Maturi"), U.S. Patent 5,559,999. This rejection is respectfully traversed.

The following summary of the pertinent material of Okada was presented on pages 17 and 18 of the 10 December 2003 Amendment:

Okada discloses an audio/video decoding system having parser 4, audio decoder 2, and video decoder 3. Parser 4, including internal demultiplexer 5, separates (demultiplexes and depacketizes) an incoming audio/video data stream into an audio data stream, an audio presentation time stamp, a video data stream, a video presentation time stamp, and a system clock reference. The audio presentation time stamp and the audio data stream are respectively sequentially stored in first-in-first-out ("FIFO") register 11 and FIFO bit buffer 12, both of which are components of audio decoder 2. The video presentation time stamp and the video data stream are respectively sequentially stored in FIFO register 21 and FIFO bit buffer 22, both of which are components of video decoder 3. The system clock reference goes to controllers 14 and 24 of respective decoders 2 and 3.

Bit buffers 12 and 22 automatically sequentially provide the audio and video data streams respectively to decoder core circuits 13 and 23 of decoders

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2 and 3 for decoding and presentation in synchronism at times determined respectively by controllers 14 and 24. Audio controller 14 determines when audio decode core circuit 13 decodes the current audio data of the audio data stream as a function of the system clock reference, the audio presentation time stamp, and the various transmission-delay/processing times in audio decoder 2. Video controller 24 similarly determines when video decode core circuit 23 decodes the current video data of the video data stream as a function of the system clock reference, the video presentation time stamp, and the various transmission-delay/processing times in video decoder 3. The decoding and presentation of the video data is synchronized to the decoding and presentation of the audio data by way of the system clock reference supplied to controllers 14 and 24.

The foregoing summary applies to a first embodiment of Okada's decoding system as shown in Fig. 1. Audio decoder 32 replaces audio decoder 2 in a second embodiment of Okada's decoding system as depicted in Fig. 2. Audio decoder 32 consists of the components of audio decoder 2 plus time stamp generator 41. In the second embodiment, video decoder 3 becomes video decoder 33 in which video controller 42 replaces video controller 24. A third embodiment of Okada's decoding system, as shown in Fig. 6, also contains audio decoder 32. In the third embodiment, video decoder 33 becomes video decoder 82 in which video controller 83 replaces video controller 42.

The following summary of the pertinent material of Maturi was presented on page 18 of the 10 December 2003 Amendment:

Maturi discloses an interrupt-based system for decoding an incoming audio/video data stream. Pre-parser 22 parses (demultiplexes and depacketizes) the audio/video data stream, stores the audio and video headers respectively in audio and video buffers 20c and 20a, and stores the audio and video data respectively in audio and video channel buffers 20d and 20b. In storing the audio and video headers in header buffers 20c and 20a, pre-parser 22 interrupts host microcontroller 18 and provides the audio and video headers with respective tags that identify the starting channel-buffer addresses of the audio and video data. In response to the interrupt, microcontroller 18 extracts the presentation time stamps from pre-parser 22 and stores the presentation time stamps in memory 18a. Audio and video decoders 28 and 26 later respectively decode the audio and video data under the synchronism control of microcontroller 18.

Independent Claims 41 and 67 respectively recite:

41. A decoder system comprising:
a control unit;

a data buffer comprising a video input buffer and an audio input buffer;

a stream demultiplexer for receiving an incoming data stream comprising data packets each comprising at least one of (i) encoded video data and a video header that contains video timing information for the encoded video data and (ii) encoded audio data and an audio header that contains audio timing information for the encoded audio data, the stream demultiplexer operating

(a) to demultiplex and depacketize the data packets without interrupting the control unit,

(b) to send the encoded video data to the video input buffer for storage there without the video timing information,

(c) to provide, for use by the control unit, video messages which identify where the encoded video data is stored in the video input buffer and which also deal with the video timing information, and

(d) to send the encoded audio data to the audio input buffer for storage there;

a video decoder that decodes the encoded video data to produce decoded video data utilizing video instructions provided from the control unit as to where the encoded video data is stored in the video input buffer; and

an audio decoder that decodes the encoded audio data to produce decoded audio data.

67. A method comprising:

receiving an incoming data stream comprising data packets each comprising at least one of (i) encoded video data and a video header that contains video timing information for the encoded video data and (ii) encoded audio data and an audio header that contains audio timing information for the encoded audio data;

demultiplexing and depacketizing the data packs without interrupting a control unit;

storing the encoded video data in a video input buffer without the video timing information;

providing, for use by the control unit, video messages which identify where the encoded video data is stored in the video input buffer and which also deal with the video timing information;

decoding the encoded video data to produce decoded video data using video instructions provided from the control unit as to where the encoded video data is stored in the video input buffer;

storing the encoded audio data in an audio input buffer; and

decoding the encoded audio data to produce decoded audio data.

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As pointed out on page 19 of the 10 December 2003 Amendment, Claims 41 and 67 each require that there be generated, for use by the control unit, video messages which identify where the encoded video data is stored in the video input buffer. In Claim 41, the video messages are generated by the stream demultiplexer. Since video bit buffer 22 in Okada is a FIFO, Okada does not generate video messages akin to the video messages of Claims 41 and 67. This is acknowledged in the present Office Action by the statement on page 3 that "Okada fails to disclose a step of providing [video messages which] identify where the encoded video data is stored in the video input buffer and audio messages which identify the location of encoded audio data in the audio buffer and PTS and system clock and timer for maintaining local time"¹. The Examiner attempts to utilize Maturi to make up for the fact that Okada does not generate, for use by a control unit² such as video controller 24 (or 42 or 83), video messages which identify where the encoded video data is stored in video bit buffer 22.

In particular, the Examiner currently attempts to combine Okada and Maturi in the same way that the Examiner attempted to combine the two references in the 30 April 2004 Office Action except that the alleged motivation for combining Okada and Maturi is different now. As stated on page 6 of the 30 April 2004 Office Action, the previously alleged motivation for combining Maturi with Okada was "to synchronize the video and audio data". The Examiner now alleges, on page 4 of the present Office Action, that "The motivation

¹ This statement appears to be inconsistent with the Examiner's earlier assertion on page 3 of the present Office Action that Okada has a stream demultiplexer that operates "to provide, for use by the control unit, video messages which identify where the encoded video data is stored in the video buffer and which also deal with the video timing information". If the final rejection is maintained in any aspect, it would be appreciated if the Examiner would provide a modified final rejection in which each such inconsistency is removed.

² In a number of places in the present Office Action (and also in the previous Office Actions), the Examiner seems to have mixed up the audio and video portions of Okada's decoding system. For example, on page 3 of the Office Action, the Examiner refers to audio buffer 12 of Okada as "video" buffer 12.

On pages 6 and 7 of the Office Action, the Examiner asserts that "Okada discloses a method and system for demultiplexing the mpeg signal into video for storing in buffer 12, audio for storing in buffer 22, . . .". However, buffer 12 again is an audio buffer and thus stores audio data rather than the asserted video data. Similarly, buffer 22 is a video buffer and thus stores video data rather than the asserted audio data.

Earlier on page 2 of the Office Action, the Examiner appears to have analogized the control unit of Claims 41 and 67 to audio controller 14 of Okada. Presumably, the Examiner intended to analogize the control unit of Claims 41 and 67 to video controller 24 (or 42 or 83) of Okada possibly in combination with audio controller 14.

In responding here to the final rejection, Applicants' Attorney has attempted to "straighten out" these apparent mix-ups, i.e., to view the wording of the present Office Action in the way that the Examiner presumably intended. Nonetheless, if the final rejection is maintained in any aspect, it would be appreciated if the Examiner would provide a modified final rejection in which each such mix-up is corrected.

would have been to reduce the number [of] times that demultiplexing device generates the interrupted signals for transmitting to the controller".

In response to the comments made on pages 17 - 21 of the Response submitted 29 July 2004, the Examiner further states on pages 6 and 7 of the present Office Action that:

[T]he examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Okada discloses a method and system for demultiplexing the mpeg signal into video for storing in buffer 12, audio for storing in buffer 22, video PTS for storing in register 21 and audio PTS for storing in register 11, wherein the PTS is used to generate a tag includes PTS and a address of the video data that stored in the buffer 22 ***without interrupt the controller***, See Fig 4 and 7. Maturi discloses a method and system for demultiplexing and depacketizing the mpeg signal into video data 20b, audio data 20d, video header 20a, audio header 20c, which includes a tag and PTS. Upon detecting the tag and PTS an interrupt signal is forwarded to CPU in order to allow the CPU for storing the information in a list "RAM" to be used by the control unit (See col. 2, lines 65 to col. 3, lines 6; See col. 5, lines 37 to col. 6, lines 48). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to apply a method of providing a control unit with tags that includes timing and location of the encoded audio and video data as disclosed by Maturi into Okada's system.

The Examiner concludes these comments by repeating the allegation that "The motivation would have been to reduce the number [of] times that demultiplexing device generates the interrupted signals for transmitting to the controller".

Accepting momentarily the Examiner's new motivation for combining Okada and Maturi³, the development of a new motivation for combining the two references does not affect the fact that the Examiner is still attempting to combine the two references in the same way as before. The comments presented in the 29 July 2004 Response as to why it would not be obvious to combine Okada and Maturi for the previously alleged motivation substantially apply to the motivation now alleged for combining the two references.

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³ See the remarks below to the effect that the alleged new motivation for combining Okada and Maturi does not appear to be a legitimate motivation for combining Okada and Maturi in the proposed way because neither audio controller 14 nor video controller 24 (or 42 or 83) appears capable of undergoing interruption.

More specifically, combining Okada and Maturi in the manner now proposed by the Examiner is illogical because the decoding of the audio and video data is already synchronized in both Okada's decoding system and Maturi's decoding system. As stated on page 18 of the 29 July 2004 Response, there would be no need for using an additional synchronization technique, such as that described in Maturi, for synchronizing Okada's video and audio data. Attempting to combine Okada and Maturi in the proposed manner would probably lead to a destructive result and, in any event, would not produce a constructive result.

As stated on page 20 of the 10 December 2003 Amendment and repeated on page 18 of the 29 July 2004 Response,

Modifying Okada's decoding system to include both Okada's current technique for synchronizing the decoding and presentation of the audio and video data and Maturi's technique for synchronizing the decoding and presentation of the audio and video data would simply increase the amount of circuitry, and associated cost, without providing a significant (if any) improvement in performance. In fact, compatibility problems could arise from the presence of two systems for synchronizing the decoding and presentation of the audio/video data, e.g., when the decoding/presentation times determined by one of the synchronization systems differs from the decoding/presentation times determined by the other synchronization system. A person skilled in the art would not modify Okada's decoding system to include both techniques for synchronizing the decoding and presentation of the audio and video data.

The federal courts have made it clear that the entire teaching of a reference employed in rejecting a claim in a U.S. patent application as obvious must be considered in making the rejection. For instance, the Court of Appeals for the Federal Circuit stated on page 1317 of In re Kotzab (CAFC 2000) 55 USPQ2d 1313, copy enclosed, in reversing an obviousness rejection that:

While the test for establishing an implicit teaching, motivation, or suggestion is what the combination of these two statements of Evans [the reference cited against the claims at issue] would have suggested to those of ordinary skill in the art, the two statements cannot be viewed in the abstract. Rather, they must be considered in the context of the teaching of the entire reference.

Hence, it is impermissible to utilize part of a reference's teaching in making an obviousness rejection while ignoring another part which mandates against the rejection.

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In the present circumstances, Okada's video and audio data is already synchronized. This fact must be considered in attempting to combine Okada with another prior art reference, such as Maturi, for the purpose of making an obviousness rejection. Inasmuch as Maturi's video and audio data is also synchronized, the fact that combining Okada and Maturi in the proposed way would lead to a non-useful result must likewise be considered in attempting to apply Maturi to Okada.

A person skilled in the art would have no incentive to combine material from two (or more) references in such a way as to produce a non-useful result. Since combining Okada and Maturi in the proposed manner would yield a non-useful result, a person skilled in the art would not be motivated to combine Okada and Maturi regardless of whether the motivation is "to synchronize the video and audio data" as asserted in prior Office Actions or "to reduce the number [of] times that demultiplexing device generates the interrupted signals for transmitting to the controller" as asserted in the present Office Action.

With apparent reference to remarks made on pages 18 and 19 of the 29 July 2004 Response, the Examiner asserts on page 7 of the present Office Action that "the applicant states that the teaching of the references does not disclose the demultiplexing and depacketizing of the data packets be done without interrupting the control unit". The Examiner then points out that "Okada disclose in Fig. 1, Ref. 5 demultiplexing for demultiplexing and depacketizing the audio and video packet without interrupting the controllers". However, Applicants' Attorney never asserted or in any way suggested that demultiplexing and depacketizing of data packets without interrupting an associated control unit is not disclosed in any of the applied references.

Applicants' Attorney is aware that the demultiplexing and depacketizing of data packets in Okada's decoding system is performed without interrupting audio controller 14 or video controller 24 (or 42 or 83) and has never asserted anything to the contrary. Instead, Applicants' Attorney pointed out on pages 18 and 19 of the 29 July 2004 Response that host microcontroller 18 in Maturi's decoding system is interrupted during the demultiplexing and depacketizing of data packets to retrieve video timing information. Applicants' Attorney specifically repeated there the following remarks from pages 20 and 21 of the 10 December 2003 Amendment:

As pointed out above, host microcontroller 18 in Maturi is interrupted during the demultiplexing and depacketizing of the incoming audio/video data

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stream to retrieve the video timing information, namely the video presentation time stamps, from pre-parser 22. Claims 41 and 67 each require that the demultiplexing and depacketizing of the data packs be done without interrupting the control unit. Even if there was some motivation for modifying Okada's decoder to include Maturi's technique for synchronizing the decoding and presentation of the audio and video data as a replacement for Okada's current technique for synchronizing the decoding and presentation of the audio and video data, the utilization of Maturi's synchronization technique would require that the control unit in the so-modified decoding system be interrupted during the demultiplexing and depacketizing of the incoming audio/video data stream to obtain the video timing information present in the incoming data stream. Accordingly, the so-modified decoding system would not meet the limitation of Claim 41 or 67 that the demultiplexing and depacketizing of the data packs be done without interrupting the control unit.

For the preceding reasons, there is no motivation for combining Okada and Maturi in the proposed manner regardless of whether the alleged motivation is "to synchronize the video and audio data" as previously asserted in or "to reduce the number [of] times that demultiplexing device generates the interrupted signals for transmitting to the controller" as now asserted⁴. Modifying Okada's decoding system to include both Okada's current technique for synchronizing the decoding and presentation of the audio and video data and Maturi's technique for synchronizing the decoding and presentation of the audio and video data would lead, as mentioned above, to a non-useful result. Additionally, combining the decoding system in the proposed manner would, even if some motivation could be found to do so, not yield a system that meets all the limitations of independent Claim 41 or 67. Claims 41 and 67 are therefore patentable over Okada and Maturi.

Furthermore, audio controller 14 and video controller 24 (or 42 or 83) in Okada appear to be rather rudimentary devices. Audio controller 14 appears to be substantially dedicated to controlling audio decode core circuit 13. Nothing in Okada discloses or in any way suggests that audio controller 14 is capable of undergoing interruption to service a component other than audio decode core circuit 13. Video controller 24 (or 42 or 83) similarly appears to be substantially dedicated to controlling video decode circuit 23. Nothing in Okada discloses or in any way suggests that video controller 24 (or 42 or 83) is capable of undergoing interruption to service a component other than video decode core circuit 23.

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⁴ To use a metaphor, a wolf in sheep's clothing is still a wolf.

The alleged new motivation for applying Maturi to Okada in order "to reduce the number [of] times that demultiplexing device generates the interrupted signals for transmitting to the controller" of Okada's decoding system requires that Okada's controller be capable of undergoing interruption. Since neither audio controller 14 nor video controller 24 (or 42 or 83) seems capable of undergoing interruption, it does not appear that applying Maturi to Okada in the proposed way would achieve the objective of this motivation regardless of whether the Examiner's references to Okada's "controller" or "control unit" means audio controller 14, video controller 24 (or 42 or 83), or both audio controller 14 and video controller 24 (or 42 or 83).

In other words, it appears that reducing "the number [of] times that demultiplexing device generates the interrupted signals for transmitting to the controller" of Okada's decoding system cannot actually serve as motivation for combining Okada and Maturi in the proposed manner. The Examiner's new rationale for combining Okada and Maturi again falls apart⁵. This is a separate reason why independent Claims 41 and 67 are patentable over Okada and Maturi.

Claims 42 - 52, 55 - 60, and 62 - 66 all depend from (directly or indirectly) from Claim 41. Claims 68 - 75 and 78 - 82 all depend (directly or indirectly) from Claim 67. Accordingly, Claims 42- 52, 55 - 60, 62 - 66, 68 - 75, and 78 - 82 are patentable over Okada and Maturi for the same reasons as Claims 41 and 67.

Claims 53, 54, 76, and 77 have once again been rejected under 35 USC 103(a) as obvious based on Okada and Maturi in view of Nuber et al. ("Nuber"), U.S. Patent 5,703,877. Claim 61 has once again been rejected under 35 USC 103(a) as obvious based on Okada and Maturi in view of Terashima et al. ("Terashima"), U.S. Patent 6,163,647. These rejections are respectfully traversed.

Claims 53, 54, and 61 each depend (directly or indirectly) from Claim 41 rejected as obvious based on Okada and Maturi. Claims 76 and 77 each depend (directly or indirectly) from Claim 67 likewise rejected as obvious based on Okada and Maturi. For the reasons presented above, neither of Claims 41 and 67 is obvious based on Okada and Maturi.

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⁵ To further differentiate Okada in view of Maturi, Applicants' Attorney is agreeable to amending Claims 41 and 67 to explicitly provide that the recited control unit is interruptible. For example, the control unit could be recited as "a control unit for performing multiple tasks and for being interrupted during at least one of the tasks to perform at least one other of the tasks".

Nothing in Nuber or/and Terashima would justify combining Okada and Maturi so as to make Claim 41 or 67 obvious. Claims 53, 54, 61, 76, and 77 are therefore variously patentable over Okada, Maturi, and Nuber or Terashima for the same reasons that Claims 41 and 67 are patentable over Okada and Maturi.

In summary, the 35 USC 132 new-matter objection to the specification should be withdrawn. Claims 41 - 82 have been shown to be patentable over the applied art. Consequently, Claims 41 - 82 should be allowed so that the application may proceed to issue.

Please telephone Attorney for Applicant(s) at 650-964-9767 if there are any questions.

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Respectfully submitted,

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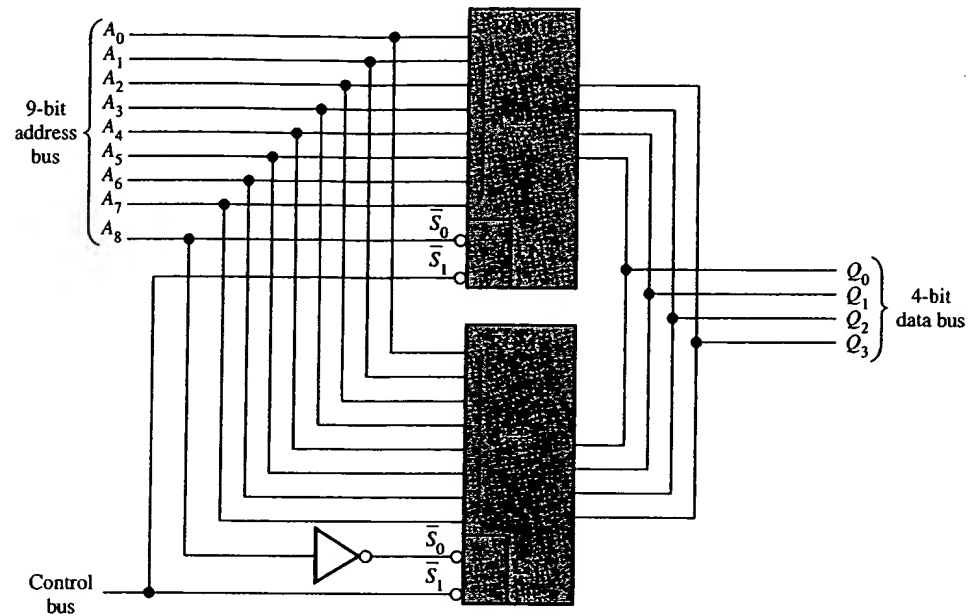


FIGURE 10-42

Related Exercise What are the ranges of addresses in ROM 1 and in ROM 2 in Figure 10-42? ■

SECTION 10-5 REVIEW

1. How many $16k \times 1$ RAMs are required to achieve a memory with a word capacity of $16k$ and a word length of eight bits?
2. To expand the $16k \times 8$ memory in question 1 to a $32k \times 8$ organization, how many more $16k \times 1$ RAMs are required?

10-6 ■ SPECIAL TYPES OF MEMORIES

In this section, the first in–first out (FIFO) memory, the last in–first out (LIFO) memory, the memory stack, and the charge-coupled device memory are covered.

After completing this section, you should be able to

- ☐ Describe a FIFO memory ☐ Describe a LIFO memory ☐ Discuss memory stacks
- ☐ Explain how to use a portion of RAM as a memory stack ☐ Describe a basic CCD memory

First In–First Out (FIFO) Memories

This type of memory is formed by an arrangement of shift registers. The term **FIFO** refers to the basic operation of this type of memory, in which the first data bit written into the memory is the first to be read out.

One important difference between a conventional shift register and a FIFO register is illustrated in Figure 10-43. In a conventional register, a data bit moves through the register only as new data bits are entered; in a FIFO register, a data bit immediately goes through the register to the right-most bit location that is empty.

Conventional shift register						FIFO shift register					
Input	X	X	X	X	Output	Input	—	—	—	—	Output
0	0	X	X	X	→	0	—	—	—	0	→
1	1	0	X	X	→	1	—	—	1	0	→
1	1	1	0	X	→	1	—	1	1	0	→
0	0	1	1	0	→	0	0	1	1	0	→

X = unknown data bits.
 In a conventional shift register, data stay to the left until "forced" through by additional data.
 — = empty positions.
 In a FIFO shift register, data "fall" through (go right).

FIGURE 10-43
Comparison of conventional and FIFO register operation.

Figure 10-44 is a block diagram of a FIFO serial memory. This particular memory has four serial 64-bit data registers and a 64-bit control register (marker register). When data are entered by a shift-in pulse, they move automatically under control of the marker register to the empty location closest to the output. Data cannot advance into occupied positions. However, when a data bit is shifted out by a shift-out pulse, the data bits remaining in the registers automatically move to the next position toward the output. In an asynchronous FIFO, data are shifted out independent of data entry, with the use of two separate clocks.

FIGURE 10-44
Block diagram of a typical
FIFO serial memory.

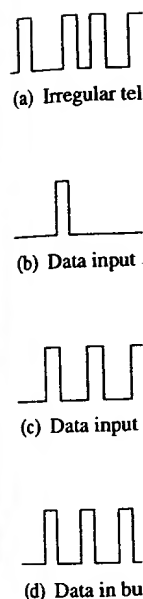
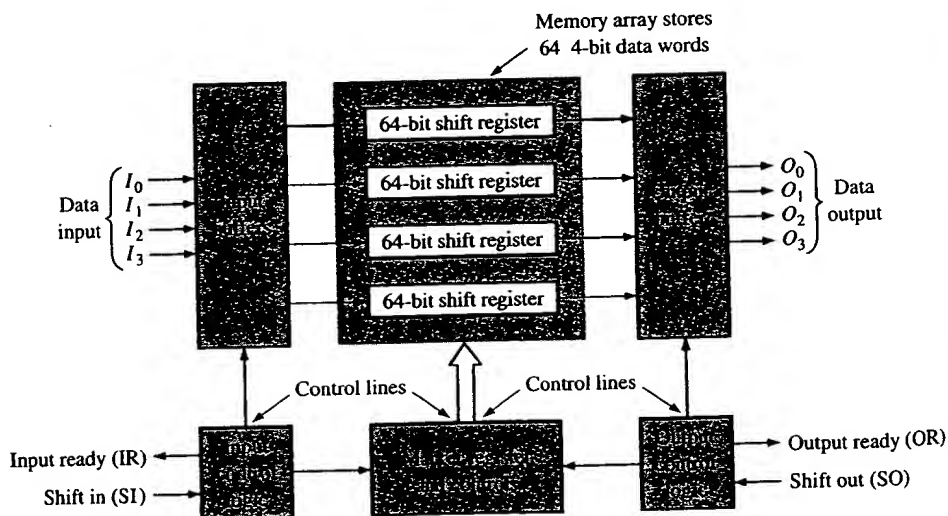


FIGURE 10-
The FIFO re

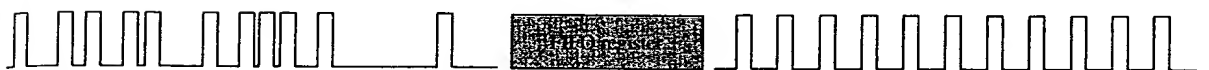
FIFO Applications

One important application area for the FIFO register is the case in which two systems of differing data rates must communicate. Data can be entered into a FIFO register at one rate and taken out at another rate. Figure 10-45 illustrates how a FIFO register might be used in these situations.

Last In-First Out (LIFO) Memories

The last in-first out (LIFO) memory is found in applications involving microprocessors and other computing systems. It allows data to be stored and then recalled in reverse order; that is, the last data byte to be stored is the first data byte to be retrieved.

Stacks A LIFO memory is commonly referred to as a push-down stack. In some systems, it is implemented with a group of registers as shown in Figure 10-46. A stack can consist of any number of registers, but the register at the top is called the *top-of-stack*.



(a) Irregular telemetry data can be stored and retransmitted at a constant rate.



(b) Data input at a slow keyboard rate can be stored and then transferred at a higher rate for processing.



(c) Data input at a steady rate can be stored and then output in bursts.

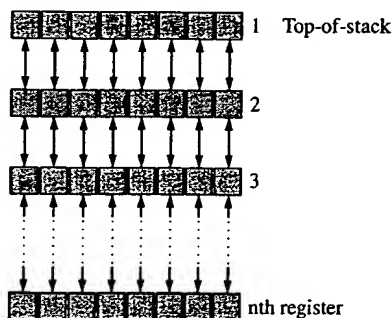


(d) Data in bursts can be stored and reformatted into a steady-rate output.

FIGURE 10-45

The FIFO register in data-rate buffering applications.

FIGURE 10-46
Register stack.



[The following decision was designated by the board to appear in digest form only.]

**Patent and Trademark Office
Trademark
Trial and Appeal Board**

In re Beitia, S. A.

Decided Apr. 18, 1978

Appeal from Examiner of Trademarks.
Application for registration of trademark of Beitia, S.A., Serial No. 78,257, filed Feb. 24, 1976. From decision refusing registration, applicant appeals. Reversed.

TRADEMARKS

Class of goods — In applications to register (§67.205)

"Machine tools" is sufficiently specific to describe semi-automatic and fully automatic hacksawing machines.

**Patent and Trademark Office
Board of Appeals**

Ex parte Brodbeck

Opinion dated Mar. 15, 1977

Reissue patent granted Oct. 25, 1977

PATENTS

1. Amendments to patent application — New matter (§13.5)

Reissue — In general (§58.1)

Inquiry whether proposed changes in patent reissue application constitute new matter within meaning of 35 U.S.C. 251 or 35 U.S.C. 132 does not end with determination that literal meaning of applicant's new limitation differs from literal meaning of corresponding limitations in his issued patent; change of wording to correct error is not new matter if one skilled in art would appreciate not only existence of error in specification but what error is.

Particular patents — Hydrocarbon Equilibration

3,647,898, Brodbeck, Equilibration of Lower Alkyl Substituted Polyalkyl Aromatic Hydrocarbons with Reduced Disproportionation, claims 1-9 of reissue application allowed.

Appeal from Group 116.

Application for reissue of patent of John J. Brodbeck, Serial No. 529,304, filed Dec. 5, 1974, for reissue of Patent No. 3,647,898, issued Mar. 7, 1972. From decision rejecting claims 1-9, applicant appeals (Appeal No. 305-22). Reversed.

J. A. Buchanan, T. G. DeJonghe, and W. Keith Turner, all of San Francisco, Calif., for applicant.

Before Witherspoon and Milestone, Examiners-in-Chief, and Rollins, Acting Examiner-in-Chief.

Rollins, Acting Examiner-in-Chief.

This appeal is from the final rejection of claims 1 to 9, which are all of the claims in the application.

Claim 1, which illustrates appellant's invention, reads as follows:

1. The process for the catalytic isomerization of an alkyl substituted polyalkyl aromatic hydrocarbon feed which comprises contacting the feed with a silicaalumina isomerization catalyst at a temperature in the range from about 700°F. to 1000°F. at a liquid hourly space velocity in the range from about 0.1 to 10, and at a pressure below about 200 p.s.i.g., wherein said catalyst consists essentially of a silica and alumina composite having a surface area in the range from about 250 to 400 square meters per gram, wherein at least 40 percent of the catalyst pore volume is from pores having a radius greater than about 45 Å., said feed having an aromatic carbocyclic carbon atom content below about 13, and having from 2 to about 4 of the same or different lower alkyl substituent groups; and said composite having a silica to alumina weight ratio in the range from about 70-90 to about 10-30, respectively.

No references have been relied on by the Examiner.

Claims 1 to 9 stand finally rejected under 35 USC 251 and 35 USC 132 for containing new matter.

We reverse this rejection.

Appellant seeks by the application on appeal to reissue his patent 3,647,898, granted March 7, 1972. Claim 1 of the pre-

sent application differs from the corresponding claim 1 of the issued patent describing a limitation related to the size of the catalyst pores as one wherein a percentage "of the catalyst pore volume is from pores having a radius greater than about 45Å." The original patent claim describes that limitation as one wherein specified percentage "of the catalyst pore volume is from pores having a radius greater than about 45Å."

In other words, the original claim limitation literally states that a given percentage of the catalyst pores must be larger than 45Å. in radius, while the limitation in present application states that a given percentage of the catalyst pore volume is from pores larger than 45Å. radius. The former limitation implies a knowledge of the number of pores themselves, while the latter limitation implies only a knowledge of the pore volume resulting from pores having the specified size.

While some of the amendments to the specification and to claim 3 of the present application contain slightly different wording from that in claim 1, the sole issue on appeal turns on the difference in meaning which we have noted above.

Appellant has furnished declaration from Dr. Hubert and Dr. Harrison to support his position. Dr. Harrison declares that in his opinion the original version of the patent and the reissue version "say the same thing because pore volume and not number of pores is measured as a function of pore diameter when catalysts are analyzed with respect to porosity." Hence the language from the patent "means that the catalyst at least 40% of the pore volume was from pores having a radius greater than 45Å.", and "the proposed reissue language merely clarifies the language used in the patent."

Dr. Hubert declares that the language used in the patent "must mean" what the new language of the application states. That in his opinion, "this meaning must be given to the language by essentially any worker skilled in the art of catalyst size characterization." Dr. Hubert complains that there is no known way of counting individual pores, and hence "(W)hen catalyst pores are analyzed in the range the only 'counting' which is done is that of the amount of pore volume in a size range, or the increment in pore volume in going from one size pores to the next size pores."

[1] We agree with the Examiner that the literal meaning of appellant's new limitation differs from the literal meaning of

Particular patents — Hydrocarbon Equilibration

3,647,898, Brodbeck, Equilibration of *n*-Alkyl Substituted Polyalkyl Aromatic Hydrocarbons with Reduced Distortion, claims 1-9 of reissue application allowed.

Appeal from Group 116.

Application for reissue of patent of John Brodbeck, Serial No. 529,304, filed Dec. 9, 1974, for reissue of Patent No. 3,647,898, issued Mar. 7, 1972. From deciding claims 1-9, applicant appealed (Appeal No. 305-22). Reversed.

Buchanan, T. G. DeJonghe, and W. H. Turner, all of San Francisco, California, for applicant.

James Witherspoon and Milestone, Examiners-in-Chief, and Rollins, Acting Examiner-in-Chief.

Rollins, Acting Examiner-in-Chief.

This appeal is from the final rejection of claims 1 to 9, which are all of the claims in the application.

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Claims 1 to 9 stand finally rejected under 35 USC 251 and 35 USC 132 for lacking new matter.

Appellant seeks to reverse this rejection.

Appellant seeks by the application on appeal to reissue his patent 3,647,898, issued March 7, 1972. Claim 1 of the pre-

sented application differs from the corresponding claim 1 of the issued patent in describing a limitation related to the size of the catalyst pores as one wherein a percentage "of the catalyst pore volume is from pores having a radius greater than about 45 Å." The original patent claim describes that limitation as one wherein a specified percentage "of the catalyst pores have a radius greater than about 45 Å."

In other words, the original claim limitation literally states that a given percentage of the catalyst pores must be larger than 45 Å. in radius, while the limitation in the present application states that a given percentage of the catalyst pore volume is from pores larger than 45 Å. radius. The former limitation implies a knowledge of the number of pores themselves, while the latter limitation implies only a knowledge of pore volume resulting from pores having the specified size.

While some of the amendments to the specification and to claim 3 of the present application contain slightly different wording from that in claim 1, the sole issue on appeal turns on the difference in meaning which we have noted above.

Appellant has furnished declarations by Dr. Hubert and Dr. Harrison to support his position. Dr. Harrison declares that in his opinion the original version of the patent and the reissue version "say the same thing because pore volume and not the number of pores is measured as a function of pore diameter when catalysts are analyzed with respect to porosity." Hence the language from the patent "means that in the catalyst at least 40% of the pore volume was from pores having a radius greater than 45 Å.", and "the proposed reissue language merely clarifies the language" used in the patent.

Dr. Hubert declares that the language used in the patent "must mean" what the new language of the application states, and that in his opinion, "this meaning would be given to the language by essentially any worker skilled in the art of catalyst pore size characterization." Dr. Hubert explains that there is no known way of counting individual pores, and hence "(W)hen catalyst pores are analyzed in the 45 Å. range the only 'counting' which is done is that of the amount of pore volume in any size range, or the increment in pore volume in going from one size pores to the next size pores."

[1] We agree with the Examiner that the literal meaning of appellant's new limitation differs from the literal meaning of the

corresponding limitations in his issued patent. But the inquiry whether the proposed changes constitute new matter within the meaning of 35 USC 251 or 132 does not end with that determination. Appellant has furnished the opinions of two experts, based on stated facts, to the effect that one skilled in the art would recognize both that appellant's patent limitation does not mean what it literally says, and also what the intended meaning is. A change of wording to correct an error is not new matter if one skilled in the art would appreciate not only the existence of the error in the specification but what the error is. In *re Oda*, 58 CCPA 1353, 443 F.2d 1200, 170 USPQ 268.

We are unable to discern in the Examiner's Answer any challenge to either the opinions expressed in the declarations or the factual analyses made by the declarants. Insofar as these uncontradicted declarations appear to establish a prima facie case that one skilled in the art would recognize both that the original patent is in error and what the erroneous expression should be, we are obliged to reverse the rejection.

We note that the present application still contains the erroneous expressions "... percent of the pores have ..." (page 3, lines 31-32), "... percent of the pores having ..." (page 3, lines 42-43), and "few or none ... of the catalyst pores having ..." (page 5, lines 20-21). Further, "pores > 45 Å radius" in the first table on page 4 apparently should be "pores > 45 Å. radius."

The decision of the Examiner is reversed.

Reversed.

[The following decision was designated by the board to appear in digest form only.]

Patent and Trademark Office Trademark Trial and Appeal Board

United Air Specialists, Inc.
v. Smokemaster, Inc.

Decided June 9, 1978

Trademark opposition No. 58,424, by United Air Specialists, Inc., against

the completion of those acts the accomplishment of which can be carried out from the description contained in the reference disclosure.

Summary

In sum, we adhere to the holding in *In re Wilkinson*, finding no superior authority or policy inconsistent therewith. The decisions on review, being directly contrary to that holding, must accordingly be reversed.

Court of Customs and Patent Appeals

In re ODA, FUJII, MORIGA,
AND HIGAKI

No. 8466

Decided July 1, 1971

PATENTS

1. Reissue — In general (§58.1)

Reissue statute is based on fundamental principles of equity and fairness; as a remedial provision, intended to bail applicants out of difficult situations into which they get without any deceptive intention, it should be liberally construed so as to carry out its purpose to the end that justice may be done to both patentees and public.

2. Amendments to patent application — New matter (§13.5)

Words and phrases (§70.)

"New matter" is a technical legal term in patent law, a term of art; its meaning cannot be clearly defined; term is on a par with such terms as "infringement," "obviousness," "priority," "abandonment," and the like which express ultimate legal conclusions and are in the nature of labels attached to results after they have been reached by processes of reasoning grounded on analyses of factual situations; court must decide on a case-by-case basis what changes are prohibited as "new matter."

3. Amendments to patent application — New matter (§13.5)

In a sense, anything inserted in specification that was not there before is new to the specification but that does not necessarily mean that it is prohibited as "new matter."

4. Reissue — Same invention as original (§58.7)

Reissue must not change invention described in original patent.

5. Amendments to patent application — New matter (§13.5)

One skilled in the art would appreciate not only existence of error in specification but what the error is; as a corollary, it follows that when nature of this error is known it is also known how to correct it; hence, change of wording to correct error is not "new matter."

6. Reissue — Inadvertence, accident and mistake (§58.3)

There is nothing in 35 U.S.C. 251, pertaining to reissue of defective patent which resulted from "error without any deceptive intention," as to timeliness of applicant's actions in prosecution of application for original patent nor is there any prohibition of reissue on ground that applicant or his attorney knew of error at time original patent issued.

7. Amendments to patent application — New matter (§13.5)

Specification — Sufficiency of disclosure (§62.7)

Fact that a change deprives phrase of a needed antecedent so that a reader might be somewhat confused does not result in injection into specification of prohibited "new matter" within meaning of 35 U.S.C. 251; it may give rise to need for rewriting or clarification and be ground for rejection under first paragraph of section 112, but "new matter" rejection because of that defect is unwarranted.

Particular patents—Compounds

3,244,730, Oda, Fujii, Moriga, and Higaki, Phthalides Compounds, claims 1 to 3 of reissue application allowed.

Appeal from Board of Appeals of the Patent Office.

Application, Serial No. 574,260, filed Aug. 5, 1966, of Ryohei Oda, Hiroshi Fujii, Hiroyuki Moriga, and Taiji Higaki, for reissue of Patent No. 3,244,730, issued Apr. 5, 1966; Patent Office Group 120. From decision rejecting claims 1 to 3, applicants appeal. Reversed.

ARNOLD G. GULKO, Washington, D. C., appellants.

S. WM. COCHRAN (R. E. MARTIN of counsel) for Commissioner of Patents.

Before RICH, ALMOND, BALDWIN, and L. Associate Judges, and RE, Judge, United States Customs Court, sitting by designation.

RICH, Judge.

This is a reissue case involving only questions of law as to compliance with 35 U.S.C. 251. Patentability of the subject matter of appealed claims, which are directed to chemical compounds, with respect to novelty, obviousness, and utility, is not in issue. The appeal is from the decision of the Patent Office Board of Appeals affirming the rejection of claims 1-3 of application serial 574,260, filed August 5, 1966, to reissue Patent No. 3,244,730, granted April 5, 1966, application filed July 17, 1963. We reverse.

The Invention

The invention sufficiently appears from appealed claims:

1. 5-nitro-3, 3-bis- (4-dimethylphenyl)-phthalide.
2. 5-acetylamine-3, 3-bis- (4-dimethylaminophenyl)-phthalide.
3. 5-benzoylamine-3, 3-bis- (4-dimethylaminophenyl)-phthalide.

The above phthalides are said to be useful intermediates for conversion into basic and also in pressure-sensitive copying paper of known construction because they are active with acidic clays to form a color.

The application for the original patent prepared by translation into English corresponding Japanese applications filed May 1960 and July 1962, which are identified in the reissue oath. The oath points out that in the translation certain errors were made which are discussed in more detail. The most important error was that "acid" was mistranslated "nitrous acid" of less importance, "ferrous oxide" in the application should have been "iron."

These errors were known to applicant's U.S. attorney before the patent issued. He thought he would be able to have them corrected, before the patent issued, by an amendment under Patent Office Rule 312, pending to amendments after allowance, which was filed February 2, 1966, but the examiner recommended against and refused entry. Months after the issuance of the patent, maintaining the translation errors, which were thought to affect its validity and therefore adequacy to protect the compounds of

sue — Same invention as original (\$58.7)

re must not change invention described in original patent.

Amendments to patent application — New matter (\$13.5)

skilled in the art would appreciate existence of error in specification of the error is; as a corollary, it follows when nature of this error is known or known how to correct it; hence, the wording to correct error is not matter."

Issue — Inadvertence, accident or mistake (\$58.3)

is nothing in 35 U.S.C. 251, permitting reissue of defective patent which from "error without any deceptive intent" as to timeliness of applicant's prosecution of application for original patent nor is there any prohibition of ground that applicant or his attorney of error at time original patent is-

Amendments to patent application — New matter (\$13.5)**Specification — Sufficiency of disclosure (\$62.7)**

that a change deprives phrase of antecedent so that a reader might be confused does not result in injection of specification of prohibited "new matter" within meaning of 35 U.S.C. 251; it is no ground for rewriting or clarification of section 112, but "new matter" because of that defect is unwarranted.

Patentable subject matter—Compounds

10, Oda, Fujii, Moriga, and Hialides Compounds, claims 1 to 3 of application allowed.

from Board of Appeals of the Patent

ion, Serial No. 574,260, filed Aug. 10, 1966, by Ryohei Oda, Hiroshi Fujii, Hiroshi Moriga, and Taiji Higaki, for reissue of patent No. 3,244,730, issued Apr. 5, 1966; In re Oda, Fujii, Moriga, and Higaki, 120 USPQ 120. From decision reissues 1 to 3, applicants appeal.

ARNOLD G. GULKO, Washington, D. C., for appellants.
S. WM. COCHRAN (R. E. MARTIN of counsel) for Commissioner of Patents.

Before RICH, ALMOND, BALDWIN, and LANE, Associate Judges, and RE, Judge, United States Customs Court, sitting by designation.

RICH, Judge.

This is a reissue case involving only questions of law as to compliance with 35 U.S.C. 251. Patentability of the subject matter of the appealed claims, which are directed to chemical compounds, with respect to novelty, obviousness, and utility, is not in issue. This appeal is from the decision of the Patent Office Board of Appeals affirming the rejection of claims 1-3 of application serial No. 574,260, filed August 5, 1966, to reissue patent No. 3,244,730, granted April 5, 1966, on application filed July 17, 1963. We reverse.

The Invention

The invention sufficiently appears from the appealed claims:

1. 5-nitro-3, 3-bis- (4-dimethylamino-phenyl)-phthalide.
2. 5-acetylmino-3, 3-bis- (4- dimethylaminophenyl)-phthalide.
3. 5-benzoylamine-3, 3-bis- (4- dimethylaminophenyl)-phthalide.

The above phthalides are said to be useful as intermediates for conversion into basic dyes and also in pressure-sensitive copying papers of known construction because they are reactive with acidic clays to form a color.

The application for the original patent was prepared by translation into English from corresponding Japanese applications filed in May 1960 and July 1962, which are identified in the reissue oath. The oath points out that in the translation certain errors were made which are discussed in more detail later. The most important error was that "nitric acid" was mistranslated "nitrous acid." Of less importance, "ferrous oxide" in the U. S. application should have been "iron."

These errors were known to applicants' U.S. attorney before the patent issued. He thought he would be able to have them corrected, before the patent issued, by an amendment under Patent Office Rule 312, pertaining to amendments after allowance, which he filed February 2, 1966, but the examiners recommended against and refused entry. Four months after the issuance of the patent containing the translation errors, which were thought to affect its validity and therefore its adequacy to protect the compounds of the

above claims by reason of an insufficient or inaccurate description of how to make them, under the first paragraph of 35 U.S.C. 112, this application for reissue was filed.

The Rejection

As background for understanding the rejection we set forth the text of 35 U.S.C. 251, first paragraph, the rest of the section being irrelevant here (added emphasis ours):

§ 251. Reissue of defective patents

Whenever any patent is, through error without any deceptive intention, deemed wholly or partly *inoperative or invalid*, by reason of a *defective specification* or drawing, or by reason of the patentee claiming more or less than he had a right to claim in the patent, the Commissioner shall, on the surrender of such patent and the payment of the fee required by law, reissue the patent *for the invention disclosed in the original patent*, and in accordance with a new and *amended* application, for the unexpired part of the term of the original patent. *No new matter* shall be introduced into the application for reissue.

The posture of the case on appeal, so far as amendments to the specification are concerned, is that in three instances in the descriptive portion of the specification, including a specific example, the word "nitrous" is changed to "nitric" and in Example 2 the words "ferrous oxide" were first changed to "iron" and then to "reducing agent." Additionally, three process claims (4-6) which contained references to "nitrous acid" have been cancelled or deleted from the patent.

The Examiner's Answer states:

Claims 1-3 stand rejected as being based on a specification containing new matter. 35 U.S.C. 251; 35 U.S.C. 112. The changes of "nitrous" to "nitric" and "ferrous oxide" to "iron" to "reducing agent" are deemed to be drawn to new matter. The specification is considered defective since without the introduction of new matter, the specification is drawn to inoperative embodiments. Applicants are not permitted to add new matter in order to disclose what they intended even though it can be shown that it was part of the original invention and had been inadvertently omitted from the original specification. The fact that the original specification is at variance with the Japanese application * * * does not provide the proper basis for such a correction. Ex parte Bondiou et al., 132 USPQ 356 [Pat.

¹ At another point appellants deleted by amendment the words "ferrous oxide and," after first changing "ferrous oxide" to "iron."

Off. Bd. App. 1961]. Since both nitrous acid and nitric acid are known to effect the nitration process, the error would not be considered obvious by one of ordinary skill in the art.

This rejection can also be construed as being based on a defective oath. The oath should state facts and not conclusions or opinions. Applicants' oath, e.g., at page 2, line 1, in referring to the errors in translation as "obvious", fails to comply with these requirements. M.P.E.P. 1401.08; Ex parte Pfaudler, 1883 C.D. 1, 23 O.G. 269; Ex parte Timkin, 1883 C.D. 58, 24 O.G. 1089.

In affirming, the board first pointed out that the appealed claims correspond "exactly to the identically numbered claims of appellants' original patent," thus making it clear that there will be no change whatever in the invention claimed by virtue of reissue, if permitted. The board pointed out that the whole controversy revolves around the section 251 provisions relating to "error without any deceptive intention" and "new matter." With an extensive effort to deflate all of appellants' arguments to the contrary, the board held that the change of "nitrous" to "nitric" would be "new matter."

The board next took up the question of "error" under section 251, a question the examiner had not raised at all. Indeed, the Examiner's Answer appears throughout to assume there was error and nothing was said about deceptive intention. The board, however, seemingly sua sponte, made a new approach to the question of whether there was "error without any deceptive intention" and reached the conclusion that "appellants' showing of 'error' under 35 U.S.C. 251 must be held to be insufficient." This new holding seems to have been based not on the *absence* of error but on appellants' attorney's handling of the prosecution—his "course of action"—in permitting the patent to issue, knowing of the errors in it, and in the time he took for various matters, such as discussing the errors with another attorney and getting information from Japan and from a local expert. Frankly, we do not follow the board's reasoning on this point.

Finally the board took up the other question of whether the changes involving the "ferrous oxide" amounted to insertion of "new matter." The board disagreed with the examiner in considerable part in finding that the simple deletion of the words was not in violation of section 251. It said:

No new matter would be involved in the cancellation, and the term "reducing agents" is found in the original application.

Moreover, the record does not reveal that the error in "ferrous oxide" was known as early as the error in "nitrous acid."

It nevertheless found "a new matter aspect" in the changes made because the deletion of "ferrous oxide" from Example 2 and its replacement by "reducing agent" would cause the example to be somewhat confusing. On this point, therefore, the "new matter" issue would seem to be converted into the question whether the creation of confusion or ambiguity by a change in a specification constitutes a violation of the prohibition against "new matter."

Opinion

[1] This court on previous occasions, particularly since the effective date of the 1952 Patent Act, has observed that the reissue statute is based on fundamental principles of equity and fairness and that, as a remedial provision, intended to bail applicants out of difficult situations into which they get "without any deceptive intention," it should be liberally construed so as to carry out its purpose to the end that justice may be done to both patentees and the public. In re Willingham, 48 CCPA 727, 282 F.2d 353, 127 USPQ 211 (1960); In re Wesseler, 54 CCPA 735, 367 F.2d 838, 151 USPQ 339 (1966). Both of these cases were cited with approval, for the proposition we have stated, in Reeves Bros., Inc. v. U. S. Laminating Corp., 282 F.Supp. 118, 127, 157 USPQ 235, 243 (E.D. N.Y. 1968). At the same time we are realistic enough to appreciate that sharp applicants must be watched with a sharp eye. This is nothing new in the legal field.

[2] The problem here is whether the changes appellants wish to make constitute "new matter" within the meaning of section 251.² "New matter" is a technical legal term in patent law—a term of art. Its meaning has never been clearly defined for it cannot be. The term is on a par with such terms as infringement, obviousness, priority, abandonment, and the like which express ultimate legal conclusions and are in the nature of labels attached to results after they have been reached by processes of reasoning grounded on analyses of factual situations. In other words, the statute gives us no help in determining what is or is not "new matter." We have to decide on a case-by-case basis what

² The same term appears in 35 U.S.C. 132 permitting applications for original patents to be amended. It provides that "No amendment shall introduce new matter into the disclosure of the invention." Presumably, and we believe desirably, the same term would and should have the same meaning in both contexts.

changes are prohibited as "new matter" what changes are not.

[3] In a sense, anything inserted in a specification that was not there before is new, the specification but that does not necessarily mean it is prohibited as "new matter."

Robinson On Patents (1890), § 561, in discussing amendment of applications, says:

No new matter can under any circumstances be introduced by amendment. New matter is that which is not found in specification, drawings, or model, as filed, and which involves a departure from the original invention. [Emphasis ours.]

In the chapter on reissues, Walker on Patents, first Deller's Edition (1937), § 311 on Matter, says:³

The provision, first enacted in The Patent Act of 1870 *** that "no new matter shall be introduced into the specification" is merely another way of saying that a reissued patent shall be for the same invention as the original. *** That provision, therefore, neither enlarged nor restricted the reissuability of Letters Patent; and, accordingly, it is not new matter, within its meaning, to state a new use of the invention shown in the original *** nor to explain in a reissue, the operation of a device which in the original was only described *** to vary the description of anything described in the original.

Of course, these generalities are not the whole story and leave many unanswered questions.

Revise and Caesar, in Patentability and Validity (1936), in a discussion of former Patent Office Rule 70, which is now Rule 131, say, in § 248:

This rule is known as "the rule against new matter" and is intended to prevent an applicant under the guise of an amendment from introducing into his application *wholly different invention or changing the construction of a fully disclosed invention or presenting a different or preferred form of the invention*. The applicant must stick to or fall on his original disclosure and amendments must conform thereto. The rule appears very simple but patent trials have experienced considerable difficulty in interpreting and applying it in practice. [Emphasis ours.]

The authors then proceed to list 14 categories into which they have put the adjudicated cases, the first of which is

³ Deller's Second Edition, § 304, is the same except for a reference to the 1952 Patent Act's prohibition of new matter in § 251.

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The authors then proceed to list 14 categories into which they have put the adjudicated cases, the first of which is

³ Deller's Second Edition, § 304, is the same except for a reference to the 1952 Patent Act's prohibition of new matter in § 251.

1. Amendments purporting to correct errors or supply omissions in features which are essential to the completeness of the disclosure.

This point they then discuss for four pages in § 249 from which we extract the following (all emphasis ours):

Amendments purporting to correct errors or to supply omissions in features which are essential to the operativeness of the invention or the completeness of the disclosure are permissible, if the errors are manifest and were caused by a clerical mistake of the draftsman or unfamiliarity of the inventor with official forms and the proposed corrections do not change the essence of the invention. ***

If the changes necessary to make the disclosed device operative are radical in their nature and constitute a departure from the invention originally disclosed, they are not permissible.

A case discussed at great length in the above section is an interference decided by this court, Quigley v. Zimmerman, 22 CCPA 713, 73 F.2d 499, 23 USPQ 310, 314 (1934), wherein, in the course of discussing a "new matter" problem, the court said (emphasis ours):

That amendments may be made to patent applications for the purpose of curing defects, obvious to one skilled in the art, in the drawings or written descriptions of inventions, is so well settled that we deem it unnecessary to cite authorities in support thereof.

With this general background on the law, admittedly sketchy, we turn to the specific problems before us in this case. The first question is whether, under all the circumstances, the changing of "nitrous" to "nitric" involves "new matter."

[4] Running through the foregoing discussion of the law is the clear and basic concept that the invention described in the original patent must not be changed. We note, first of all, that that is not a problem in this case. The invention before us, as defined in the claims, consists of three specific chemical compounds. There is no change proposed in the claims or in the description of the claimed compounds in the specification. There is no deviation whatever with respect to the invention.

The change from nitrous to nitric acid occurs only in description of how to make the claimed compounds, which is not the invention since no process is now claimed. In the principal illustrative example (wherein two of

the three occurrences of "nitrous" appear), Example 1, is the following key passage (emphasis added):

A liquid mixture (5.5 ml.) of sulfuric acid (specific gravity 1.80) and nitrous acid (specific gravity 1.45) having a ratio of sulfuric acid to nitrous acid of 5:1 is gradually added to the solution of phthalide compound in sulfuric acid and the mixture so-produced is maintained at a temperature in the range of from 0-30° C. for one hour. This is part of the description of a nitrating process which the record in this case shows to be a well-known reaction.

Appellants have produced affidavit evidence from an apparently well-qualified chemist, Dr. Zisman, for 10 years prior to making his 1966 affidavit Superintendent of the Chemistry Division of the U. S. Naval Research Laboratory, showing that the passage italicized above is obviously in error. Obviousness is predicated on the fact that nitrous acid cannot exist at a specific gravity of 1.45 because the solubility in water of nitrous oxide is so low that it is not feasible to provide nitrous acid at specific gravities in excess of approximately 1.023, thus making the existence of error apparent on the face of the patent.

Either the term "nitrous acid" is wrong or the specific gravity is wrong. The Patent Office contends that there is no way of telling which it is, but appellants submit several good reasons in support of their contention that one skilled in the art would know that it is the acid that is misnamed. We think appellants have the better of the argument. The Patent Office sets up the number of occurrences of "nitrous"—six, counting the three original process claims no longer in the case—as against the single occurrence of the numeral and says mistakes in numerals are very common. We do not find this numerical argument weighty. Once the translator decided, incorrectly, that what the Japanese application said was "nitrous" it was only reasonable that he should be consistent; we are considering a translation error, not a typographical error. Appellants make four points based on the Zisman affidavit as to why a skilled chemist would assume that nitric acid was meant: (1) A specific gravity of 1.45 is correct for concentrated nitric acid, the evidence being that it would represent 79.5% HNO₃; (2) nitric acid is the acid normally used in admixture

with sulfuric acid for nitrating; (3) nitrous acid is known not to be desirable for the nitration of amine, and amines are here being nitrated; (4) even if nitrous acid were used it would be generated in situ because of its instability in aqueous solution, but that is not how the nitration process is described in the patent. In addition to and on the basis of these reasons, Dr. Zisman expressed his judgment as a chemist that it was clear to him that nitric acid was intended. There appears to be a fifth reason brought out in argument, namely, that specific gravity is an inappropriate way of identifying the concentration of nitrous acid in water because its maximum specific gravity of 1.023 is too close to that of water, which is

[5] 1.000. On all the evidence, we conclude that one skilled in the art would appreciate not only the existence of error in the specification but what the error is. As a corollary, it follows that when the nature of this error is known it is also known how to correct it. We therefore disagree with the board's first conclusion that the change of "nitrous" to "nitric" is "new matter."

We also think there is adequate evidence in the record to show that the error in saying "nitrous" instead of "nitric" was a translation error. The reissue oath, made by all four inventors, so states. A separate affidavit of Hiroshi Fujii, one of the inventors, familiar with the U. S. application and the corresponding Japanese application, states that in the Japanese application "the word 'nitric' [in Japanese, presumably] is used at each place" where the word "nitrous" appears in the U. S. application and that the error was due to faulty translation of the Japanese into English. Beside that, all of the circumstances of the case as shown by correspondence introduced with the affidavit of Arnold G. Gulko, the U. S. attorney, point to the existence of a translation error which was discovered by the inventors during the prosecution. The Patent Office complains that there is no certified copy of the Japanese application on file and no sworn translation. While no doubt the best evidence of translation error would be, in part, a copy of the Japanese application or patent, its absence is not fatal since we find the evidence of record sufficient. There is not the slightest evidence to cast doubt on appellants' assertions or any suggestion they are trying to change the nature of the invention patented.

The board's second point is that there has been no "error without any deceptive intention." As stated above, this was not a ground of rejection put forward by the examiner. The Patent Office brief admits the board raised the question on its own. We have read the board's

argument with care and still are not clear as to the basis on which it found no "error." Its finding seems to be based on a mixture of two things: the amount of time the attorney took to carry out various aspects of the prosecution after he became aware of the error and that he knew there was error in the patent when he allowed it to issue. What happened was that after becoming aware of the error an attempt was made to correct it by amendment filed February 2, 1966, under Rule 31 (Amendments after allowance). Entry of the amendment was refused on February 14 and the patent issued on April 5, 1966. Recourse was then had to this reissue application, filed August 5, 1966.

[6] What the 1952 statute says is that when the patent is deemed "inoperative, invalid"—i.e., it is ineffective to protect an invention adequately or it is a nullity—and is so because of error, and the applicant or reissue is not guilty of "any deceptive intention," then the patent may be reissued, subject to the other provisions of the statute. We are unable to find in this provision anything pertaining to the timeliness of an applicant's actions in the prosecution of the application for the original patent. Neither do we find any prohibition of reissue on the ground that the applicant or his attorney knew of the error at the time the original patent issued. The board seems to have premised its ruling on this point primarily on *Ex parte Zihlerl*, 116 USPQ (Pat. Off. Bd. App. 1957). Although that case was decided after the 1952 Patent Act, the opinion makes it clear that the term "error" therein was equated with the term "inadequacy, accident or mistake" of the prior statute, R.S. 4916, former 35 U.S.C. 64. In *Wesseler*, supra, we ruled that the 1952 reissue statute broadened the term "error" by not limiting it to "error" that had arisen through "inadequacy, accident, or mistake." *Wesseler* was subsequent to *Zihlerl*. Cases relying on the language of the former statute are no longer controlling. To "equate" the language of the present statute with that of the old statute was done in the *Zihlerl* opinion, is to ignore the change that Congress made and to deny applicants the benefit of the intended broadening. Nothing the board has said persuades us that this is not a case of "error without any deceptive intention." In fact, the record as a whole presents a picture of prosecution conducted in complete good faith.⁶

⁴ As an illustration of how human it is to err, we take note of an error in this Zisman affidavit where he used the word "nitric" at this crucial point in the affidavit although the context makes it perfectly clear that he meant to say "nitrous." No one appears to contest that that was the intention.

⁵ The only provision in § 251 relating to the last paragraph which provides that a reissue "enlarging the scope of the claims" must be applied for within two years from the patent grant.

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⁵ The only provision in § 251 relating to time is the last paragraph which provides that a reissue "enlarging the scope of the claims" must be applied for within two years from the patent grant.

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The board's final point brings us back to an attempt to rectify another translation error and as in the other case we have the reissue oath and a second Fujii affidavit as evidence establishing the existence of error due to faulty translation. In two places the specification mentions "ferrous oxide," which served in the process of making the claimed compounds as a reducing agent. The specification says it is a reducing agent and names others. The oath and affidavit say the correct translation should have been "iron" rather than "ferrous oxide." The reissue sought to make this change, but after filing, by amendment, appellants deleted both references to "iron" and in Example 2 inserted in its place "reducing agent." The board partially reversed the examiner in saying that the *deletions* did not result in "new matter." However, the board found that, with the change, Example 2 "would be confusing" for lack of an antecedent for the expression "essentially free of ferric hydroxide contamination." It deemed this "a new matter aspect" and said:

To the limited extent indicated by the foregoing discussion, the holding of new matter in Example 2 will be sustained.

[7] We do not agree with the "new matter" rejection under these circumstances. The mere fact that a change deprives a phrase of a needed antecedent so that a reader might be somewhat perplexed or confused does not result in the injection into a specification of prohibited "new matter" within the meaning of § 251. It may give rise to a need for rewriting or clarification and be ground for a rejection under § 112, first paragraph, but a "new matter" rejection because of that defect is unwarranted.

Since we disagree with the board on each of the three grounds on which it sustained the rejection, its decision is *reversed*.

The record shows that appellants are not charged with "any deceptive intention", as that expression is used in Section 251.

abuse of discretion standard is the guide for our review of a district decision to enforce a settlement nt.

Wilson, 46 F.3d 660, 664 (7th Cir.

ie extent that the district court in case made a finding of fact that had agreed to the settlement t forth in the draft agreement, the oneous standard is applicable. we believe that the reasoning of ersuasive, and therefore will uti- use of discretion standard in re- district court's decision to grant to enforce the settlement based nary factual finding.

istrict court erred when it ordered the settlement agreement

peal, TSI contends that the dis- order should be set aside because of the agreement are in dispute" e "there was no meeting of the e principal issue" Thermos- : other hand, asserts that TSI to a settlement agreement on n open Court" and "later insisted ional term" For the reasons ow, we are of the opinion that the rt clearly erred in siding with on this factual question.

cuit has long recognized the ent authority and equitable pow- ct court to enforce an agreement it of litigation pending before it k Foundry Co. v. Lindberg, 797 2-83 (6th Cir. 1986). Moreover, court possesses this power "even ement has not been reduced to Brock v. Scheuner Corp., 841 154 (6th Cir. 1988) (quoting Am. Corp. v. Murray Mach., 2d 71, 77 (6th Cir. 1985)). In tional Distillers Products Co., 9 (6th Cir. 1973), however, this ed as follows:

r of a trial court to enter a enforcing a settlement agree- its basis in the policy favoring nent of disputes and the avoid- stly and time-consuming litiga- hile summary enforcement of a agreement may very well pro- ove policy in cases where there bstantial dispute as to the entry : terms of, the agreement, sum- eedings may result in inequities uch a dispute does exist. itations omitted). Thus, "[b]e- g settlement, the district court

must conclude that agreement has been reached on all material terms." *Brock*, 841 F.2d at 154.

[2] Here, the district court summarily concluded that "[t]he parties . . . entered into a stipulation and agreement in open Court" We believe this finding of fact was clearly erroneous. Notably absent from its order is any discussion of whether the parties agreed as to Thermoscan's secondary identifier obligations. If the district court had engaged in such an analysis, it would have recognized that the source of the disagreement was the district court's own language. The parties' collective conduct following the February 26, 1999 hearing confirms that there was ambiguity in the district court's recitation of the disputed term.

As previously noted, the district court set forth the understanding of the parties as follows: "[A]ll marketing in the future of the Thermoscan thermometer shall include the name 'Braun' prominently displayed either in the advertising or on the package. And I'm not saying that it has to be equal size, bigger or smaller, but just visible" (Emphasis added.) Both sides indicated in open court that they agreed with the district court's outline of the settlement terms, but their subsequent dispute makes clear that each heard only what it wanted to hear. TSI honed in on the words "prominently displayed" and naturally expected them to be in the written agreement. Thermoscan, on the other hand, fixated on the words "just visible" and equally expected them to be the controlling standard.

These reasonable differences in interpretation manifested themselves in heated debate during the drafting process, a situation that highlights the disagreement between the parties and the obvious materiality of the disputed term. See *United States v. Orr Constr. Co.*, 560 F.2d 765, 770 (7th Cir. 1977) ("[T]he record shows that the parties consistently clashed over the meaning of [a clause in their tentative agreement] during the course of their negotiations following the exchange of proposals, indicating that they never had reached a true agreement.").

The basic problem is that, at least as it relates to size, the terms "prominently displayed" and "just visible" are inherently incompatible. Yet the district court used both terms in successive sentences. Although either party could have, and perhaps should have, pointed out this inconsistency to the district court, there is no basis to blame one side any more than the other for failing to do so. See *Flower City Painting Contractors, Inc. v. Gumina Constr. Co.*, 591 F.2d 162, 165 (2d Cir. 1979) ("[W]e cannot say that

either party acted so unreasonably as to justify construing the ambiguity in the contract against it.").

We recognize that a trade name can be "prominently displayed" by means other than size, such as by font, placement, color, or relief. But Thermoscan objected to any language that included the term "prominently displayed," despite its explicit mention by the district court as a key provision of the proposed settlement. The end result was simply no objective manifestation of a "meeting of the minds" on this material term of the settlement. See *United Paperworkers Int'l Union v. Champion Int'l Corp.*, 908 F.2d 1252, 1258 (5th Cir. 1990) ("In determining whether there was a meeting of the minds, the parties' objective, rather than subjective, intent governs."); see also *Local Motion, Inc. v. Niescher*, 105 F.3d 1278, 1280 (9th Cir. 1997) ("The presence of an ambiguous material term may indicate that no meeting of the minds occurred when the document was signed."). Because the root source of the ambiguity was the district court's own inconsistent language, we believe that it was an abuse of discretion for the court to impose Thermoscan's version of the settlement upon TSI.

C. The question of whether the district court erred when it dismissed TSI's suit with prejudice is rendered moot

Because we are remanding this case for further proceedings, the issue of whether the district court erred when it dismissed TSI's claims with prejudice is rendered moot.

III. CONCLUSION

For all of the reasons stated above, we REVERSE the judgment of the district court and REMAND the case for a ruling on Thermoscan's motion for summary judgment and, if necessary, for a trial on the merits.

U.S. Court of Appeals
Federal Circuit

In re Kotzab

No. 99-1231

Decided June 30, 2000

PATENTS

1. Patentability/Validity — Obviousness — Combining references (§115.0905)

Evidence does not support finding that combination of prior art references teaches

use of single temperature sensor to control plurality of flow control valves, as in method for injection molding plastic articles claimed in patent in suit, since rejection of claims in re-examination was based on prior art statements that "one system" may be used to control several valves, and that single sensor may be used to provide "the temperature measurement at a selected part of the machine," but there is not substantial evidence to show that "one system" is same as "one sensor," or that skilled artisan, confronted with problem noted by inventor of patent in suit and two statements in prior art, would have been motivated to control plurality of valves in multiple-zone setting with only one temperature sensor.

2. Patentability/Validity — Obviousness — Combining references (§115.0905)

Although test for establishing implicit teaching, motivation, or suggestion in prior art is what combination of prior art statements would have suggested to those of ordinary skill, such statements must be considered in context of teaching of entire reference, and cannot be viewed in abstract, and rejection of claims cannot be predicated on mere identification in prior art reference of individual components of claimed limitations; rather, particular findings must be made as to reason skilled artisan, with no knowledge of claimed invention, would have selected these components for combination in manner claimed.

3. Patentability/Validity — Obviousness — Combining references (§115.0905)

Identification of prior art statements that, in abstract, appear to suggest claimed limitation does not establish prima facie case of obviousness without finding as to specific understanding or principle within knowledge of skilled artisan that would have motivated one with no knowledge of invention at issue to make combination in manner claimed.

Particular patents — Chemical — Injection molding

5,427,720, Kotzab, method for mold temperature control, decision holding invention unpatentable reversed.

Appeal from the U.S. Patent and Trademark Office, Board of Patent Appeals and Interferences.

Werner Kotzab appeals from final decision, in Reexamination No. 90/004,441, holding claims 1-10 of patent in suit unpatentable for obviousness under 35 U.S.C. §103(a). Reversed.

Robert F.I. Conte, Thomas Eugene Smith, and James B. Conte, of Lee, Mann, Smith, McWilliams, Sweeney & Ohlson, Chicago, Ill., for appellant.

Mark Nagumo, associate solicitor, Albin F. Drost, acting solicitor, John M. Whealan, acting deputy solicitor, and Stephen Walsh, associate solicitor, U.S. Patent and Trademark Office, Arlington, Va., for appellee.

Before Lourie, Gajarsa, and Linn, circuit judges.

Linn, J.

DECISION

Werner Kotzab appeals from the final decision of the Board of Patent Appeals and Interferences ("Board") holding claims 1-10 in reexamination number 90/004,441 unpatentable for obviousness under 35 U.S.C. § 103(a). *See Ex Parte Kotzab*, Paper No. 17 (BPAI July 15, 1998). This case was submitted for our decision following oral argument on April 4, 2000. Because certain of the Board's key factual findings relating to its obviousness analysis are not supported by substantial evidence, and because the Board erred in concluding that the claims would have been obvious as a matter of law, we reverse.

BACKGROUND

A. The Invention

The invention involves an injection molding method for forming plastic articles. In such methods, the temperature of the mold must be controlled so that the plastic can harden uniformly throughout the mold. Kotzab was confronted with the problem of providing optimal temperature control for an injection molding method to ensure the quality of the final product on the one hand, and achieving optimally short molding cycle times on the other hand. He arrived at a

solution which is embodied in claim 1 of the reexamination as follows:

1. An improved method of controlling the temperature of an injection mold by pressure feeding molding material into a mold recess of an injection mold by an extruder curing the material in the mold, and removing molded material from the mold, said pressure feeding, curing, and removing being a molding cycle of recurring molding cycles and said recurring molding cycles having at least a first molding cycle and a second molding cycle,

comparing a preset nominal temperature to an actual temperature measured by at least one temperature sensor during said first molding cycle and said second molding cycle and supplying an amount of temperature controlling medium to the first molding cycle and the second molding cycle, said amount of temperature controlling medium being dependent on the deviation between the actual temperature measured and the desired preset nominal temperature, the improvement comprising:

controlling, via a single sensor, a plurality of flow control valves for the temperature controlling medium to provide improved temperature control medium to the first and second molding cycles,

determining empirically or by calculation a quantitative spacial distribution of the temperature controlling medium needed to obtain said desired preset nominal temperature during at least the first molding cycle and the second molding cycle, determining empirically or by calculation the conduits needed to be utilized to obtain the desired preset nominal temperature during at least the first molding cycle and the second molding cycle,

comparing said desired preset nominal temperature to said actual temperature at least once during the first molding cycle and the second molding cycle at a certain point in time being the same for each molding cycle, such that said comparison made during said first cycle is synchronized with said comparison made during said second subsequent molding cycle, said plurality of flow control valves triggered during each said cycle to provide said impulse control medium, and triggering being dependent on the deviation of temperature determined for

erner Kotzab appeals from final decision in Reexamination No. 90/004,441, holding claims 1-10 of patent in suit unpatentable for obviousness under 35 U.S.C. (a). **Reversed.**

For F.I. Conte, Thomas Eugene Smith, James B. Conte, of Lee, Mann, Smith, Williams, Sweeney & Ohlson, Chicago, Ill., for appellant.

Nagumo, associate solicitor, Albin F. [unclear], acting solicitor, John M. Whealan, [unclear] deputy solicitor, and Stephen [unclear], associate solicitor, U.S. Patent and Trademark Office, Arlington, Va., for appellee.

For: Lourie, Gajarsa, and Linn, circuit judges.

1, J.

DECISION

erner Kotzab appeals from the final decision of the Board of Patent Appeals and Inventions ("Board") holding claims 1-10 of reexamination number 90/004,441 unpatentable for obviousness under 35 U.S.C. § 103. *See Ex Parte Kotzab*, Paper No. 17 (July 15, 1998). This case was submitted for our decision following oral argument on April 4, 2000. Because certain of the key factual findings relating to its obviousness analysis are not supported by the evidence, and because the Board's conclusion that the claims would be obvious as a matter of law, we

BACKGROUND

A. The Invention

The invention involves an injection molding method for forming plastic articles. In this method, the temperature of the mold is controlled so that the plastic can be uniformly distributed throughout the mold. Kotzab is confronted with the problem of achieving optimal temperature control for an injection molding method to ensure the quality of the final product on the one hand, and an optimally short molding cycle on the other hand. He arrived at a

solution which is embodied in claim 1 of the reexamination as follows:

1. An improved method of controlling the temperature of an injection mold by pressure feeding molding material into a mold recess of an injection mold by an extruder, curing the material in the mold, and removing molded material from the mold, said pressure feeding, curing, and removing being a molding cycle of recurring molding cycles and said recurring molding cycles having at least a first molding cycle and a second molding cycle,

comparing a preset nominal temperature to an actual temperature measured by at least one temperature sensor during said first molding cycle and said second molding cycle and supplying an amount of a temperature controlling medium to the first molding cycle and the second molding cycle, said amount of temperature controlling medium being dependent on the deviation between the actual temperature measured and the desired preset nominal temperature, the improvement comprising:

controlling, via a single sensor, a plurality of flow control valves for the temperature controlling medium to provide impulse temperature control medium to the first and second molding cycles,

determining empirically or by calculation a quantitative spacial distribution of temperature controlling medium needed to obtain said desired preset nominal temperature during at least the first molding cycle and the second molding cycle and determining empirically or by calculation the conduits needed to be utilized to obtain the desired preset nominal temperature during at least the first molding cycle and the second molding cycle,

comparing said desired preset nominal temperature to said actual temperature, at least once during the first molding cycle and the second molding cycle at a certain point in time being the same for each said molding cycle, such that said comparison made during said first cycle is synchronized with said comparison made during said second subsequent molding cycle, and said plurality of flow control valves are triggered during each said cycle to provide said impulse control medium, and said triggering being dependent on the deviation of temperature determined for each

said comparison and also being dependent on a stored profile of said quantitative spacial distribution of the temperature controlling medium.

J.A. at 18-19.

Claim 3, which depends from claim 1, adds the following further limitation: "wherein a flow measuring turbine is associated with each flow control valve to detect the actual flow in each cycle and wherein a proportioning of a cooling or heating medium is effected in dependence on a comparison of a nominal flow to the actual flow." *Id.* at 19.

Claim 10, which depends from claim 3, additionally provides that "the rotation of said measuring turbine is transferred into pulses, so that the nominal flow [of the temperature controlling medium] can be fixed by the presetting of a corresponding number of pulses." *Id.* at 20.

B. The Reexamination Proceeding

U.S. Patent 5,427,720 ("the '720 patent") issued to Kotzab on June 27, 1995. A third party filed a request for reexamination on November 4, 1996. The reexamination was granted and assigned control no. 90/004,441. The amended claims were finally rejected by the Examiner, and Kotzab appealed the rejections to the Board. On July 15, 1998, the Board affirmed the Examiner's rejection of the claims for essentially the reasons expressed in the Examiner's Answer. The Board did, however, provide its own additional comments primarily for emphasis.

Specifically, the Board agreed with the Examiner that WO 92/08598 ("Evans") discloses a process of controlling the temperature of an injection mold by using a sensor to control the pulsing of a temperature control medium through the mold. Moreover, the Board found, as explained by the Examiner, that Evans discloses in a less preferred embodiment, using only one temperature measurement to control the coolant pulses rather than an average temperature measurement. *See Evans* application, p.6, ll. 17-23.

In addition, the Board found that Evans discloses that "the optimum timing of the cooling flow can be selected in accordance with the known temperature of the mould." *Id.* at ll. 6-8. Furthermore, the Board found that a prior art promotional article discloses that manipulation of the geometry and layout of the cooling segment provides for the greatest improvement in molding cycle. *See Horst Wieder, Understanding the pulse modulated mold temperature control meth-*

od, (CITO Products, Inc., WI.) 1987, at p. 1, col. 2, ll. 13-16. And, the Board determined that a May 1984 prior art article indicates that it was known to establish a cooling regime before the mold is produced, and that the determination of the cooling regime includes the number and location of the cooling conduits, as well as the volume of the coolant flow. Thus, the Board concluded that the evidence of record indicates that it was known in the art to utilize empirical data to design the mold and the distribution of cooling channels in that mold. In view of the foregoing, the Board found that the empirical determination of the necessary spatial distribution of the length of the cooling pulses needed for delivering the appropriate coolant is disclosed by Evans or was known at the time the invention was made. Consequently, the Board affirmed the Examiner's rejection of claims 1, 2, and 4-9 under 35 U.S.C. § 103(a) as being unpatentable over Evans.

The Board made additional findings related to claims 3 and 10 in determining that they were also unpatentable under 35 U.S.C. § 103(a) over Evans in view of certain secondary references.

Kotzab filed a request for reconsideration, which the Board denied on November 24, 1998. In that decision, the Board reiterated agreement with the Examiner that it would have been obvious for one of ordinary skill in the art to utilize only one temperature measurement to control the coolant pulses in light of the Evans disclosure. Kotzab timely appealed the Board's decision to this court. We have jurisdiction pursuant to 28 U.S.C. § 1295(a)(4)(A) (1994).

DISCUSSION

A. Standard of Review

A claimed invention is unpatentable if the differences between it and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art. See 35 U.S.C. § 103(a) (Supp. III 1997); *In re Dembiczak*, 175 F.3d 994, 998, 50 USPQ2d 1614, 1616 (Fed. Cir. 1999). The ultimate determination of whether an invention would have been obvious under 35 U.S.C. § 103(a) is a legal conclusion based on underlying findings of fact. See *Dembiczak*, 175 F.3d at 998, 50 USPQ2d at 1616. We review the Board's ultimate determination of obviousness de novo. See *id.* However, we review the Board's underlying

factual findings for substantial evidence. See *In re Gartside*, 203 F.3d 1305, 1316, 53 USPQ2d 1769, 1776 (Fed. Cir. 2000).

Substantial evidence is something less than the weight of the evidence but more than a mere scintilla of evidence. See *id.* at 1312, 53 USPQ2d at 1773 (quoting *Consolidated Edison Co. v. NLRB*, 305 U.S. 197, 229-30 (1938)). In reviewing the record for substantial evidence, we must take into account evidence that both justifies and detracts from the factual determinations. See *id.* (citing *Universal Camera Corp. v. NLRB*, 340 U.S. 474, 487-88 (1951)). We note that the possibility of drawing two inconsistent conclusions from the evidence does not prevent the Board's findings from being supported by substantial evidence. See *id.* Indeed, if a reasonable mind might accept the evidence as adequate to support the factual conclusions drawn by the Board, then we must uphold the Board's determination. See *id.*

B. Analysis

A critical step in analyzing the patentability of claims pursuant to section 103(a) is casting the mind back to the time of invention, to consider the thinking of one of ordinary skill in the art, guided only by the prior art references and the then-accepted wisdom in the field. See *Dembiczak*, 175 F.3d at 999, 50 USPQ2d at 1617. Close adherence to this methodology is especially important in cases where the very ease with which the invention can be understood may prompt one "to fall victim to the insidious effect of a hindsight syndrome wherein that which only the invention taught is used against its teacher." *Id.* (quoting *W.L. Gore & Assocs., Inc. v. Garlock, Inc.*, 721 F.2d 1540, 1553, 220 USPQ 303, 313 (Fed. Cir. 1983)).

Most if not all inventions arise from a combination of old elements. See *In re Rouffet*, 149 F.3d 1350, 1357, 47 USPQ2d 1453, 1457 (Fed. Cir. 1998). Thus, every element of a claimed invention may often be found in the prior art. See *id.* However, identification in the prior art of each individual part claimed is insufficient to defeat patentability of the whole claimed invention. See *id.* Rather, to establish obviousness based on a combination of the elements disclosed in the prior art, there must be some motivation, suggestion or teaching of the desirability of making the specific combination that was made by the applicant. See *In re Dance*, 160 F.3d 1339, 1343, 48 USPQ2d 1635, 1637 (Fed. Cir. 1998); *In re Gordon*, 733 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1984). Even when obviousness is based on a single

prior art reference, there must be a showing of a suggestion or motivation to modify teachings of that reference. See *B.F. Goodrich Co. v. Aircraft Breaking Sys. Corp.*, F.3d 1577, 1582, 37 USPQ2d 1314, 1318 (Fed. Cir. 1996).

The motivation, suggestion or teaching may come explicitly from statements in prior art, the knowledge of one of ordinary skill in the art, or, in some cases the nature of the problem to be solved. See *Dembiczak*, 175 F.3d at 999, 50 USPQ2d at 1617. In addition, the teaching, motivation or suggestion may be implicit from the prior art as a whole, rather than expressly stated in references. See *WMS Gaming, Inc. v. International Game Tech.*, 184 F.3d 1339, 1351, 51 USPQ2d 1385, 1397 (Fed. Cir. 1999). The test for an implicit showing is what combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would suggest to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 425, 25 USPQ 871, 881 (CCPA 1981) (and cases cited therein). Whether the Board relied on an express or an implicit showing, it must provide particular findings related to the teaching. See *Dembiczak*, 175 F.3d at 999, 50 USPQ2d at 1617. Broad conclusory statements standing alone are not "evidence."

Kotzab's primary argument that the Board erred in holding claims 1-10 unpatentable under 35 U.S.C. § 103(a) over Evans or Evans in view of secondary references is that Evans does not teach or suggest the use of a single temperature sensor to control a plurality of flow control valves. We agree.

As noted previously, the Board adopted the Examiner's reasoning in upholding rejection of the claims and added its own comments. None of the Board's comments relate to the issue of Evans teaching or suggesting the use of one sensor to control a number of valves regulating coolant flow in the mold. Thus, we look to the Examiner's reasons for finding this limitation to be obvious. Evans expressly taught or suggested in Evans.

The Examiner cites Evans for teaching that "one system constructed and operated according to the invention may be used to control a number of valves." Evans' application, p. 19, ll. 6-8 (emphasis added). In this disclosure only, the Examiner concluded that Evans teaches the use of one sensor to control a number of valves. This conclusion must necessarily rest on the stated premise by the Examiner that "one system" is equal to "one sensor."

[1] But the Board's decision, adopting the Examiner's premise, lacks the necessary substantial evidence to support a rejection.

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See Gore & Assocs., Inc. v. Garfield, 1 F.2d 1540, 1553, 220 USPQ 1 (Cir. 1983)).
 Not all inventions arise from a combination of old elements. *See In re Rouff*, 1350, 1357, 47 USPQ2d 1453, 1457 (Cir. 1998). Thus, every element of an invention may often be found in the prior art. *See id.* However, identification of each individual part is not sufficient to defeat patentability of a claimed invention. *See id.* Rather, obviousness based on a combination of elements disclosed in the prior art is not sufficient to suggest the desirability of making a combination that was made by the inventor.
See In re Dance, 160 F.3d 1358, 1363, 51 USPQ2d 1635, 1637 (Fed. Cir. 1998).
See Gordon, 733 F.2d 900, 902, 125, 1127 (Fed. Cir. 1984).
 Obviousness is based on a single

prior art reference, there must be a showing of a suggestion or motivation to modify the teachings of that reference. *See B.F. Goodrich Co. v. Aircraft Breaking Sys. Corp.*, 72 F.3d 1577, 1582, 37 USPQ2d 1314, 1318 (Fed. Cir. 1996).

The motivation, suggestion or teaching may come explicitly from statements in the prior art, the knowledge of one of ordinary skill in the art, or, in some cases the nature of the problem to be solved. *See Dembiczak*, 175 F.3d at 999, 50 USPQ2d at 1617. In addition, the teaching, motivation or suggestion may be implicit from the prior art as a whole, rather than expressly stated in the references. *See WMS Gaming, Inc. v. International Game Tech.*, 184 F.3d 1339, 1355, 51 USPQ2d 1385, 1397 (Fed. Cir. 1999). The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art. *See In re Keller*, 642 F.2d 413, 425, 208 USPQ 871, 881 (CCPA 1981) (and cases cited therein). Whether the Board relies on an express or an implicit showing, it must provide particular findings related thereto. *See Dembiczak*, 175 F.3d at 999, 50 USPQ2d at 1617. Broad conclusory statements standing alone are not "evidence." *Id.*

Kotzab's primary argument that the Board erred in holding claims 1-10 unpatentable under 35 U.S.C. § 103(a) over Evans, or Evans in view of secondary references, is that Evans does not teach or suggest the use of a single temperature sensor to control a plurality of flow control valves. We agree.

As noted previously, the Board adopted the Examiner's reasoning in upholding the rejection of the claims and added further comments. None of the Board's comments relate to the issue of Evans teaching or suggesting the use of one sensor to control a number of valves regulating coolant flow to the mold. Thus, we look to the Examiner's reasons for finding this limitation to be expressly taught or suggested in Evans.

The Examiner cites Evans for teaching that "one system constructed and operated according to the invention may be used to control a number of valves." Evans application, p. 19, ll. 6-8 (emphasis added). In view of this disclosure only, the Examiner concluded that Evans teaches the use of one sensor to control a number of valves. This conclusion must necessarily rest on the unstated premise by the Examiner that "one system" is equal to "one sensor."

[1] But the Board's decision, adopting the Examiner's premise, lacks the necessary substantial evidence to support a rejection of

Kotzab's claims. Specifically, there is not substantial evidence to show that "one system" is the same thing as "one sensor." The words "sensor" and "probe" are used throughout Evans to refer to the device that measures the mold temperature. Evans uses the word "signal" to refer to the response generated by the measured temperature that controls the valves for coolant flow. Finally, the word "system" is used in Evans to refer to the overall temperature control system that is responsible for the valve timing for coolant flow to increase or decrease the temperature of the mold. Evans clearly never uses the term "system" as a substitute for the simple temperature measuring device it calls "sensor." And, the Board made no reference to any evidence in the record that would equate "one system" with "one sensor."

As mentioned previously, more than a mere scintilla of evidence is necessary to support the Board's implicit conclusion that "one system" is equal to "one sensor." Based on the entirety of Evans' disclosure, we cannot say that there is such relevant evidence as a reasonable mind might accept as adequate to support the conclusion that "one system" means "one sensor."

[2] The United States Patent and Trademark Office argues that because Evans teaches that a single sensor may be used to provide "the temperature measurement at a selected part of the machine," it necessarily follows that the Evans "system" discussed later may have a single sensor—and that single sensor may control more than one valve. *See id.* at p. 6, ll. 21-23; p. 19, ll. 6-8. While the test for establishing an implicit teaching, motivation, or suggestion is what the combination of these two statements of Evans would have suggested to those of ordinary skill in the art, the two statements cannot be viewed in the abstract. Rather, they must be considered in the context of the teaching of the entire reference. Further, a rejection cannot be predicated on the mere identification in Evans of individual components of claimed limitations. Rather, particular findings must be made as to the reason the skilled artisan, with no knowledge of the claimed invention, would have selected these components for combination in the manner claimed.

We do not take issue with the argument that Evans suggests the concept of using the historic temperature obtained by one temperature measurement to control coolant pulses. *See id.* at p. 5, ll. 14-22; p. 6, ll. 17-23. However, there is not substantial evidence of record to extrapolate this teaching to the multiple zone system described later in Evans. *See id.* at p. 18, l. 22 to p. 19, l. 8. In the

multiple zone system, Evans describes the use of a temperature sensor and an associated flow control valve in each zone. At most, the combined teachings suggest that the historic temperature of a mold zone may be measured by one sensor, and as part of a multiple zone system where multiple valves are controlled, that one sensor measurement can be used to control the valve for that zone. Thus, we cannot say that there is such relevant evidence as a reasonable mind might accept as adequate to support the conclusion that where there are a plurality of control valves in a multiple zone setting, only one temperature sensor provides the control for a plurality of valves.

Moreover, we cannot say that there is such relevant evidence as a reasonable mind might accept as adequate to support implicitly the conclusion that a skilled artisan confronted with (1) the problem noted by Kotzab, i.e., providing optimal temperature control for an injection molding method to ensure the quality of the final product on the one hand, and achieving optimally short molding cycle times on the other hand, and (2) the two statements in Evans, would have been motivated to control a plurality of valves in a multiple zone setting with only one temperature sensor.

[3] In this case, the Examiner and the Board fell into the hindsight trap. The idea of a single sensor controlling multiple valves, as opposed to multiple sensors controlling multiple valves, is a technologically simple concept. With this simple concept in mind, the Patent and Trademark Office found prior art statements that in the abstract appeared to suggest the claimed limitation. But, there was no finding as to the specific understanding or principle within the knowledge of a skilled artisan that would have motivated one with no knowledge of Kotzab's invention to make the combination in the manner claimed. In light of our holding of the absence of a motivation to combine the teachings in Evans, we conclude that the Board did not make out a proper *prima facie* case of obviousness in rejecting claims 1, 2, and 4-9 under 35 U.S.C. § 103(a) over Evans. Moreover, because the rejections of claims 3 and 10 rely upon the foregoing, we also conclude that the Board did not make out a proper *prima facie* case of obviousness in rejecting those claims under 35 U.S.C. § 103(a).

CONCLUSION

For the above reasons, we conclude that there is not substantial evidence to support the Board's finding of fact that Evans ex-

pressly teaches that "one sensor" may be used to control a plurality of valves, and there is not substantial evidence of record, either expressly or implicitly, to modify the teachings of Evans to obtain a system in which one sensor controls a plurality of valves. Accordingly, we

REVERSE.

National Arbitration Forum

General Media Communications Inc. v.
JMR Creations

No. FA0004000094387

Decided June 1, 2000

TRADEMARKS AND UNFAIR TRADE PRACTICES

1. Infringement; conflicts between marks — Willful (§335.11)

REMEDIES

Non-monetary and injunctive — Equitable relief — Seizure (§505.0703)

Internet domain name "Penthouse.net," registered to respondent, will be transferred to complainant in administrative proceeding for determination of rights in name, since it is nearly identical and confusingly similar to several trademarks and domain names in which complainant has rights, and in which respondent has no rights or legitimate interests, since respondent registered and acquired "Penthouse.net" primarily for purpose of selling or otherwise transferring it to complainant, or to compete with complainant, and since respondent therefore has registered and used this domain name in bad faith.

Administrative proceeding initiated by complainant General Media Communications Inc. against respondent JMR Creations for determination of rights in Internet domain name "Penthouse.net," pursuant to Uniform Domain Name Dispute Resolution Policy of Internet Corporation for Assigned Names and Numbers. Decision in favor of complainant.

Floyd A. Mandell, Orrin S. Shifrin, and Joni S. Jacobsen, of Katten Muchin Zavis, Chicago, Ill., for complainant.

Timothy Engling, of Lee, Mann, Smith & McWilliams, Sweeney & Ohlson, Chicago, for respondent.

Bender, arbitrator.

The above entitled matter came on for administrative hearing on June 1, 2000, before the undersigned on the Complaint of General Media Communications, Inc., after "Complainant", against JMR Creations, hereafter "Respondent". Complainant was represented by Floyd A. Mandell. Respondent was represented by Timothy Engling. Upon the written submission received the following *DECISION* is made:

PROCEDURAL FINDINGS

Domain Name: Penthouse.net
Domain Name Registrar: Network Solutions, Inc.
Domain Name Registrant: JMR Creations
Date of Domain Name Registration: September 22, 1997
Date Complaint Filed: April 3, 2000
Date of Commencement of Administrative Proceeding in Accordance with Rule and Rule 4(c): April 7, 2000
Due date for a Response: Respondent submitted a Response to the Complaint.

After reviewing the Complaint, and finding it to be in administrative compliance with the National Arbitration Forum (The Forum) forwarded the Complaint to the respondent on April 7, 2000, in compliance with Rule 2(a), and the administrative proceeding was commenced pursuant to Rule 4(c). In compliance with Rule 4(d), the Forum immediately notified Network Solutions, Inc., the Internet Corporation for Assigned Names and Numbers (ICANN) that the administrative proceeding had commenced. Respondent submitted a response to The Forum within (20) days pursuant to Rule 5(a).

On September 22, 1997, Respondent registered the domain name "Penthouse.net" with Network Solutions, Inc., the entity that is the Registrar of the domain name. On January 11, 2000, Network Solutions, Inc. verified that Respondent is the Registrar for the domain name "Penthouse.net" and that further by registering its domain name with Network Solutions, Inc., Respondent agreed to resolve any dispute regarding the domain name through Network Solutions, Inc. and by derivation ICANN's Rules and Regulations for Uniform Domain Name Dispute Resolution.

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